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ABSTRACT

Presented is a state-of-the-art report on individualized programing for the severely multiply handicapped based on questionnaires completed by personnel from 96 programs and site visits to 27 schools. Chapters 1-3 provide a statement of the problem and description of the sample (including demographic data and definitions of deaf-blind and multiply handicapped). Chapter 4 examines the goals and definitions of individualization for normal and multiply handicapped persons. Reviewed in chapter 5 are procedures for evaluation, referral and instructional goal setting. Data on such program factors as physical aspects, location of services and staff resources are summarized in chapter 6. Focused on in chapter 7 are alternatives for curriculum, instruction, behavior management, and materials. The written plan as it contributes to individualization is dealt with in chapter 8, and individualized programing for parents is considered in chapter 9. Program responsibilities after the child leaves are reviewed in chapter 10 including discussions of followup and program evaluation. Chapter 11 reviews the problems involved in the process and makes recommendations for improved individualization. Among eight appendixes are lists of communication, screening, self help, and cognitive assessment scales. (CL)

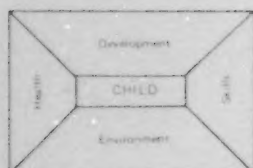
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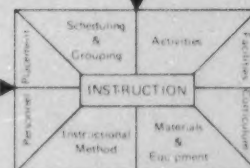
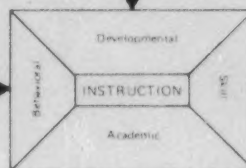
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INDIVIDUALIZED PROGRAMMING FOR THE SEVERELY MULTIPLY-HANDICAPPED

1975

CONCURRENT
SERVICE
LEVEL
FamilyADJACENT
SERVICE
LEVEL
Home, Campus,
School
InteractionCENTRAL
INSTRUCTIONAL
LEVELADJACENT
SERVICE
LEVEL
TherapyCONCURRENT
SERVICE
LEVEL
MedicineTENTATIVE
IDENTIFICATIONDEFINING
NEEDS

INTERACTION



INSTRUCTION

Texas Regional Resource Center
Technical Report No. 1

EC080395

Individualizing Services to Deaf-Blind and Other
Multiply Handicapped Children:
State-of-the-Art: 1975

by

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June, 1975

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EDITOR'S PREFACE

Funding requirements and legal decisions have called for the formulation of individualized services for handicapped children. This requirement has in turn led to uncertainty as to what these requirements mean in terms of specific actions which local programs serving handicapped children must take.

The present study is designed to answer some of these concerns.

ACKNOWLEDGEMENTS

Special thanks go to the following individuals and organizations:

1. Those who supplied names and addresses of appropriate programs for participation in this study;
2. Those who supplied support in the form of soliciting participants;
3. Those who took the time to send pamphlets, brochures and other kinds of information;
4. Those who took the time to show us their programs and schools;
5. Those who read and offered critical suggestions on the finished manuscript, and
6. Especially, those who took the time to fill out and return questionnaires.

In addition, we wish to acknowledge P. Thain Marston for the preparation and utilization of the computer programs, and those who helped prepare the final copy of this manuscript for publication and dissemination: Patsy Spencer, Vauna Powell, Robyn Eoff, Anita Mills, and Marilyn Davis.

CRITICAL REVIEWS

The usefulness of a state-of-the-art report can only be determined by those who attempt to use it in their own specific situations. The validity of such a report, however, may be at least partially determined by those who are familiar with nationwide trends and issues in the services to which the state-of-the-art addresses itself.

The following reviews are included for the purpose of establishing such validity.

A Review

Individualizing Services to Deaf-Blind and Other Multihandicapped Children: State-of-the-Art, 1975

This State-of-the-Art report attends to the development, implementation and evaluation of individualized plans for delivery of services to deaf-blind and other multiply handicapped children and was based on a systematic attempt to determine and to describe the nature, scope and process of individualization as it exists in the mid-70's. The geographic spread of programs participating included all regions of the 50 contiguous United States. Program and process generalizations made from the report should have validity since regional bias is not a factor.

The report includes data of value to program planners and implementors in terms of the array of alternatives presented in 1) systematic planning; 2) program processes; 3) appraisal and evaluation; 4) time factors in various program processes; 5) appraisal teams and their personnel; 6) appraisal tools and their appropriateness; 7) reassessment vs. continuing assessment; 8) advocacy roles, relationships and processes; 9) instructional goals and their rationale; 10) alternative placements; 11) communication; 12) staff training; 13) curriculum; 14) materials and equipment; 15) the written plan and its variations; 16) parents and their programmatic inclusion; 17) post-program objectives and individual child follow-up; and 18) program evaluation.

The systems model: SCOPE AND SEQUENCE OF INDIVIDUALIZED SERVICES IN EDUCATIONAL PROGRAMS FOR MULTIPLY IMPAIRED CHILDREN (Figure 3, page 34) merits particular study. While few programs can and will include each facet, these need to be considered in relation to a given program's stated goals.

Discrepancies in defining the deaf-blind and multiply-handicapped populations are discussed. There is greater variance in defining the multiply-handicapped with resultant lack of commonalities among programs. The severity of an individual's dysfunction is not apparent in any of the definitions, even when the qualifiers "severe" and "profound" are used, since these terms are ill-defined operationally.

The overriding need for effective communication among and between all groups and individuals concerned with a child's progress is noted as a primary consideration. It is at this point that implementation of an individualized plan is most easily thwarted.

Dr. Jasper Harvey
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A Review

Individualizing Services to Deaf-Blind and Other Multihandicapped Children: State-of-the-Art, 1975

I commend the Texas Regional Resource Center for your efforts to determine the nature, scope, and process of individualization as it presently occurs in programs designed to meet the needs of severely and/or multiply handicapped children. The report most certainly provides comprehensive information regarding the state-of-the-art of programs for this group of children.

I found the report to be very clear and readable. The summaries at the end of each section are most helpful in assisting the reader to attend to the major points covered in each section. It appears from the list of programs participating in the study that the findings should be representative of what is occurring nationwide. The number of participating programs is large enough that it was possible to delineate problems and make valid recommendations.

I was particularly impressed that the study investigated alternatives for involving parents and post program alternatives. These aspects of programs are generally the least well developed.

The findings included in this comprehensive report should be especially useful to those individual programs offering services to severely and multiply handicapped children in evaluating their individualization of services and in giving them insights as to how their own program can be improved. It is particularly useful to practitioners who will be using the report that the emphasis was on individualization as a process for decision making rather than providing a set of components. Thus, the implementer of the findings of the study has a broad picture as to the range of possibilities available to any given program and can adapt or adopt alternatives that will be compatible with or enhance a given program.

This report should also be a valuable reference in courses concerned with providing services for severely or multiply handicapped children. In addition, the findings of the study should stimulate researchers to study some of the critical problems on a research basis.

It is my opinion that this study has the potential to make a valuable contribution to the field when made available to practitioners directing programs, teacher trainers, and researchers.

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A Review

Individualizing Services to Deaf-Blind and Other Multihandicapped Children: State-of-the-Art, 1975

A comprehensive study of this nature points to the vast diversity of approaches designed to cope with the complex problem of service delivery to severely handicapped children.

The conceptualization for data gathering was uniquely appropriate to maximize the scope of possible alternatives. Some very positive aspects were identified, such as: 1) intense efforts to acquire relevant diagnostic and evaluative data on the children; 2) a wide variety of creative and flexible approaches to programming; and 3) the concern for on-going evaluation of children and programs.

Less positive findings revealed 1) that there exists a generally primitive "state of the art" in terms of definitions, communication between programs, philosophies for setting goals and planning programs, and involvement of parents; 2) an evident need for setting realistic specific objectives for individualization in keeping with diagnostic assessments; 3) the general lack of coordination of ideas, practices, and resources between and across programs; and 4) the need for new approaches to training of paraprofessional teachers and diagnostic personnel in knowledge of functional developmental levels of children who are severely damaged.

The findings stress that a combination of most appropriate alternatives in instruction, management, materials and equipment is a feasible rationale for individualization -- the key is personnel who can make rational decisions as to the most logical alternatives.

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A Review

Individualizing Services to Deaf-Blind and Other Multihandicapped Children: State-of-the-Art, 1975

Chapters I through III deal specifically with a statement of the problem and demographic information regarding the parameters of the study and are quite interesting. Chapter IV (Defining Individualization) includes a comprehensive set of short-term goals and long-term objectives, though not stated behaviorally. This chapter also contains a fairly complete list of characteristics included within the confines of individualization as applied to the multiply-handicapped individual. Characteristics are listed within areas of assessment, objectives, curriculum, and evaluation. An excellent scope and sequence chart of all pertinent services for the handicapped is included. There is also a brief bibliography at the end of the chapter on individualized instruction. Chapter V (Defining Needs and Setting Goals) includes an excellent and valuable list of resource personnel for appraisal in areas of medical, physical, cognitive, social and educational concern. Chapter VI (Program Resources: Input for Individualization) is a summary of information obtained from the questionnaires originally distributed and contains a compilation of physical resources, staff resources, and community resources available to the participants of the questionnaire. Chapter VII (The Instructional Program) deals particularly with the what to teach, rather than the how to teach, and as such contains more general information, rather than specifics. However, extremely interesting to a teacher for the multiply handicapped child is the section on Alternatives: Materials and Equipment which considers the problems of hardware for the handicapped child. It poses particularly relevant questions to answer regarding appropriateness of equipment to a particular situation. This section, in combination with Appendix F, which specifically lists materials and equipment for various developmental areas is extremely valuable to the classroom teacher. Chapter VIII (The Written Plan) provides formulae for writing plans whether total service plan, individual service plan, or a plan written at the implementation level. This would be a valuable resource for individuals not familiar with plan sheets. Chapter IX (Parents) introduces an interesting concept of parent involvement, in which some goals are directed toward the child, and some toward the parent -- an interesting and valuable way of obtaining parent participation. Chapter X (Post Program Alternatives) contains a compilation of the information from the survey and a presentation of a variety of options to the reader. Chapter XI (Individualization: Problems and Recommendations) contains a review of these factors with a slight emphasis placed on the problems rather than the recommendations. I would like to point out that extremely valuable information for teachers is contained in the appendices, such as a variety of assessment scales in the area of communication, screening, self-help, and cognitive (a most comprehensive list); a comprehensive bibliography for curriculum in many areas; a list of alternatives for equipment and materials; and samples of written plan sheets used in various programs. The major strength of this paper is the multiplicity of resources from which a teacher could draw. It provides a graphic representation of the many considerations necessary to a program of this type.

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TABLE OF CONTENTS

	Page
EDITOR'S PREFACE.....	111
ACKNOWLEDGEMENTS.....	iv
CRITICAL REVIEWS.....	v
LIST OF TABLES.....	x111
LIST OF FIGURES.....	xvii
Chapter	
I. STATEMENT OF THE PROBLEM AND METHODOLOGY.....	1
Statement of the Problem.....	1
Methodology.....	2
II. DESCRIPTION OF THE SAMPLE.....	4
Description of the Programs.....	4
Characteristics of Respondents.....	9
Summary.....	13
III. DEFINING THE POPULATIONS SERVED.....	14
Demographic Data.....	14
Defining Deaf-Blind and Multiply Handicapped.....	20
IV. DEFINING INDIVIDUALIZATION.....	25
Goals and Definitions from the Literature.....	25
Goals and Definitions from the Study.....	27
V. DEFINING NEEDS AND SETTING GOALS.....	37
Introduction.....	37
Defining Needs: Identification.....	39
Defining Needs: Diagnosis and Evaluation.....	43
Setting Goals.....	61

	Page
VI. PROGRAM RESOURCES: INPUT FOR INDIVIDUALIZATION.....	69
Physical Resources.....	69
Staff Resources.....	77
Community Resources.....	88
Summary.....	91
VII. THE INSTRUCTIONAL PROGRAM.....	92
Alternatives for Curriculum.....	92
Alternatives for Instruction.....	95
Alternatives for Behavior Management.....	96
Alternatives: Materials and Equipment.....	98
Summary: Individualizing the Instructional Program.....	101
VIII. THE WRITTEN PLAN.....	102
The Plan as Used by Participants.....	102
A Definition of the Plan.....	103
IX. PARENTS: PROCESS AND ALTERNATIVES.....	108
Child vs. Parent Oriented Participation.....	108
Parent-Oriented Programming.....	110
X. POST-PROGRAM ALTERNATIVES.....	113
Exit from Program.....	113
Follow-up.....	118
Program Evaluation.....	119
Summary.....	121
XI. INDIVIDUALIZATION: PROBLEMS AND RECOMMENDATIONS.....	123
Accounting Procedures.....	123
Areas Essential for Individualization.....	124
Areas Difficult to Individualize.....	126
Problems Encountered in Individualization.....	129
Summary.....	132
XII. SUMMARY.....	133
APPENDIX A: PARTICIPATING PROGRAMS.....	136
APPENDIX B: SITE VISITS.....	142
APPENDIX C: B.E.H. PROGRAMS FOR SEVERELY HANDICAPPED CHILDREN AND YOUTH.....	145

	Page
APPENDIX D: APPRAISAL ALTERNATIVES.....	147
APPENDIX E: CURRICULUM ALTERNATIVES.....	158
APPENDIX F: ALTERNATIVES FOR MATERIALS AND EQUIPMENT.....	167
APPENDIX G: SAMPLES OF WRITTEN PLANS.....	171
APPENDIX H: OTHER RESOURCES.....	203

LIST OF TABLES

Table	Page
1. Age of Program by Type of Population Served.....	4
2. Size of Population of Program Locale, by Type of Population Served.....	5
3. Source of Funding by Type of Population Served.....	6
4. Type of Program (Day, Residential) by Type of Population Served.....	7
5. Setting of Program by Type of Population Served.....	7
6. Geographical Area Served by Program, by Type of Population Served.....	8
7. Respondents: Administrative Questionnaire.....	9
8. Highest Degree Held by Teaching Personnel, by Type of Population Served.....	10
9. Time of Degree of Teaching Staff, by Type of Population Served.....	11
10. Certification Held by Teacher Respondents, by Type of Population Served.....	12
11. Types of Multiple Handicaps Reported for Children in Deaf-Blind Programs.....	17
12. Types of Multiple Handicaps Reported for Children in Programs for Multiply Handicapped.....	18
13. Percentage of Programs with 50-100% Enrollees Having More than Two Major Handicaps, by Type of Population Served.....	19
14. Explicitness of Definition by Type of Population Served, as Reported by Administrators and Teachers.....	20
15. Level of Definition by Type of Population Served.....	21

Table	Page
16. Level of Formulation of Definition of Individualization as Reported by Administrators, by Type of Population Served.....	29
17. Explicitness of Definition of Individualization, by Type of Population Served.....	29
18. Use of Identification System by Type of Population Served.....	40
19. Major Sources of Referrals by Setting of Program.....	41
20. Average Time Spent in Diagnosis and Evaluation by Type of Population Served.....	45
21. Average Time Spent in Diagnosis and Evaluation, by Setting of Program.....	46
22. Time of Educational Evaluation by Setting of Program.....	47
23. Responsibility for Educational Evaluation by Setting of Program	51
24. Areas in which Appraisal is Required, as Reported on Administrative Questionnaire, by Type of Population Served.....	53
25. Personnel Involved in Writing the Appraisal Report, by Type of Population Served.....	56
26. Classroom Level Reassessment Intervals by Major Source of Funding.....	58
27. Time Intervals of Program Level Reassessment by Major Source of Funding.....	58
28. Explicitness of Goal Definition by Type of Population Served, As Reported on Administrative Questionnaire.....	62
29. Areas of Program Goals by Major Source of Funding.....	63
30. Areas of Instructional Goal Setting by Upper Age Limit of Program.....	65
31. Personnel Involved in Setting Instructional Goals, by Upper Age Limit of Program.....	66
32. Location of Services: Advantages and Disadvantages for Meeting Individual Needs, as Reported by Administrators and Teachers.....	70

Table	Page
33. Class Placement as a Function of Type of Population Served, as Reported by Teachers.....	74
34. Time in Educational Program Per Week by Setting of Program.....	76
35. Adult/Child Ratio by Type of Population Served.....	78
36. Personnel Available by Setting of Program, as Reported by Administrators.....	80
37. Ratios of Professionals to Paraprofessionals by Setting of Program.....	81
38. Use of Volunteers by Major Source of Funding as Reported on Administrative and Teacher Questionnaires....	82
39. Use of Community Resources by Setting of Program.....	89
40. Mean Rank of Resources in Order of Importance, by Setting of Program.....	90
41. Personnel Involved in Choosing of Developing Individual Curricula, by Upper Age Limit of Program.....	94
42. Individuals Involved in Behavior Management Decisions, by Upper Age Limit of Program.....	97
43. Percentages of Programs Reporting Different Time Ranges for Plans, by Setting of Program.....	103
44. Exit Criteria for 50-100% of the Students, by Program Upper Age Limit.....	114
45. Exit Criteria for 50-100% of Students, by Setting of Program.....	115
46. Personnel Involved in Exit Decision, by Setting of Program.....	117
47. Programs Reporting Follow-up Procedures by Setting of Program.....	119
48. Programs Utilizing Procedures for Program Evaluation, by Major Source of Funding.....	120
49. Areas Essential for Individualization as Reported on Teacher and Administrative Questionnaires, by Four Largest Program Settings.....	125

Table	Page
50. Areas Moderately or Extremely Difficult to Individualize, by Upper Age Limit of Program.....	127
51 Problem Areas Resulting from Individualization, by Four Largest Program Settings.....	130
52. Problem Areas in Individualization by Age of Program.....	131

LIST OF FIGURES

Figure	Page
1. Ages and Developmental Levels of Children in Programs for Deaf-Blind.....	14
2. Ages and Developmental Levels of Children in Programs for Multiply Handicapped.....	15
3. Scope and Sequence of Individualized Services in Educational Programs for Multiply Impaired Children....	34

CHAPTER I

STATEMENT OF THE PROBLEM AND METHODOLOGY

Statement of the Problem

Current major emphasis in the field of special education is upon the development, implementation, and evaluation of individualized service plans for deaf-blind and other multiply handicapped children. The Program of Services to Deaf-Blind Children and Youth in the Bureau of Education for the Handicapped has, for example, instituted a requirement that all deaf-blind programs funded under Title VI-C in 1974-75 develop and evaluate educational plans for each child served. In addition, recent legal decisions (Wyatt vs. Stickney, 1971) and federal guidelines have stressed the development of individualized programs for all handicapped children. Despite this emphasis, however, little has been done toward providing any basis for a common orientation among personnel involved in programming for these children, or for sharing systematic approaches for attacking the problems inherent in this type of service delivery system.

To date there has been no systematic attempt to describe directly the nature, scope, or process of individualization as it presently occurs in programs for the severely or multiply handicapped. Recognizing this need for information, the Coordinators of the Regional Centers for Services to Deaf-Blind, at a meeting in San Francisco, California in June, 1974, decided to conduct a national research effort to gather data on individual service plans currently being developed for deaf-blind children, and to report on the state-of-the-art in the field. Because of its interest in gathering the same kinds of information from programs serving multiply handicapped children other than deaf-blind, the Texas Regional Resource Center, in Austin, Texas, agreed to contribute additional funding in order to extend the study to these programs, and accepted responsibility for administering the study.

The present report is the result of this study, and is directed toward supplying information about individualization by examining the literature on individualization in terms of its applicability to deaf-blind and other multiply handicapped children, by analyzing definitions actually used by individuals and programs serving these children, by looking at methods currently being used to implement these definitions, and by attempting to synthesize these findings into a comprehensive and systematic framework.

Specifically, the goals of the report are:

1. To define individualization in a manner relevant for delivering services to deaf-blind and other multiply handicapped children;
2. To explore the array of alternatives currently being utilized by a variety of programs in delivering individualized services to these populations;
3. To define the role of the child-by-child plan in delivering individualized services; and
4. To provide a vehicle for sharing this information among programs.

Methodology

Instrumentation

Two questionnaires were designed for use in the study. The first was a short sampling questionnaire used to gather demographic data. The second, the main questionnaire, was designed to gather information covering definitions of individualization, program components which are or should be individualized, and strategies which are being used to individualize these various program components. Two versions of this questionnaire, one each for teachers and administrators, were designed, pilot tested, and subsequently revised. These became the final questionnaires which were sent to participating programs.

Procedure

A mailing list covering programs serving either deaf-blind or other multiply handicapped children was compiled from various sources. Coordinators of Regional Centers for Services to Deaf-Blind were asked for their cooperation in contacting the programs funded through their centers. Programs serving multiply handicapped children were contacted through use of the list of model projects for severely handicapped funded by Bureau of Education for the Handicapped, through solicitation of program names from state departments of education, and by word of mouth.

Each program on the mailing list was sent the sampling questionnaire, a letter explaining the project, and a commitment form. Of the approximately 300 letters disseminated, 150 commitment forms were returned. Because of the nature of the study, i.e., a state-of-the-art, it was decided to use all 150 of these in the study in order to gather as much data as possible. These 150 programs received sets of the main questionnaires, each set being composed of an administrative questionnaire and the number of teacher questionnaires which each program had indicated that it would be willing to complete. Of these, 96 sets of questionnaires were returned, and have yielded the bulk of the data presented in this report.

In addition to the programs represented by the questionnaires, site visits were made to 27 schools, or to programs within schools. Observations at

these sites supplied data which is included in the narrative sections of the report.

Lists of participant programs and site visits may be found in Appendices A and B.

CHAPTER II

DESCRIPTION OF THE SAMPLE

Description of the Programs

The following data are presented as a means of describing characteristics of the programs and participants in the study. Of the 96 programs filling out questionnaires, 51 (53%) reported serving deaf-blind, 40 (42%) serve the multiply handicapped, and 5 programs (5%) reported data for both populations. (For a definition of the term "multiply handicapped" as used in this study, see Chapter III).

Age of Program

Table 1 shows the distribution for age of program, defined as time spent in delivery of services to similar populations, for programs reporting services to deaf-blind, to multiply handicapped and to both populations.

TABLE 1
AGE OF PROGRAM BY TYPE OF POPULATION SERVED

Age of Program	<u>Population Served</u>							
	Deaf-Blind		Multiply handicapped		Both		Totals	
	n	%	n	%	n	%	n	%
0 - 1 year	9	17.6	6	15.0	---	---	15	15.6
1 - 3 years	28	55.0	13	32.5	1	20.0	42	43.8
3 - 6 years	11	21.6	11	27.5	2	40.0	24	25.0
> 6 years	3	5.8	10	25.0	2	40.0	15	15.6
Totals	51	100.0	40	100.0	5	100.0	96	100.0

The majority of programs for the deaf-blind (55%) are from one to three years old, while more than half of the programs for other multiply handicapped children are three years of age or older. Two-thirds of the programs less than one year of age are deaf-blind programs. This is to be expected, as only recently has the deaf-blind population received separate funding on a large scale.

Size of Population of Program Locale

Table 2 reports the size of the population in the area surrounding the three types of programs.

TABLE 2
SIZE OF POPULATION OF PROGRAM LOCALE,
BY TYPE OF POPULATION SERVED

Population of Program Locale	<u>Population Served</u>							
	<u>Deaf-Blind</u>		<u>Multiply handicapped</u>		<u>Both</u>		<u>Totals</u>	
	n	%	n	%	n	%	n	%
2,500	2	3.9	1	2.6	—	—	3	3.1
2,500-50,000	12	23.5	16	41.0	2	40.0	30	31.3
50,000	37	72.6	22	56.4	3	60.0	62	64.6
Other								
Totals	51	100.0	39	100.0	5	100.0	95	

The majority of participant programs reported being located in urban areas with greater than 50,000 population. There were proportionately more multiply handicapped than deaf-blind programs in areas with population from 2,500 to 50,000.

Funding

Table 3 depicts sources of funding for the deaf-blind, multiply handicapped, and combination programs.

TABLE 3

SOURCE OF FUNDING BY TYPE OF POPULATION SERVED

Source of Funding	Population Served							
	Deaf-Blind		Multiply handicapped		Both		Totals	
	n	%	n	%	n	%	n	%
Public (state,local)	13	29.6	20	54.1	2	67.0	35	41.7
Federal	26	59.1	12	32.4	1	33.0	39	46.4
Private	2	4.5	2	5.4	-	----	4	4.8
Tuitions	—	--	1	2.7	-	----	1	1.2
Other *	3	6.8	2	5.4	-	----	5	5.9
Totals	44	100.0	37	100.0	3	100.0	84	100.0

* Other includes sources such as United Fund and other non-profit organizations,

While over half of the deaf-blind programs responding to this questionnaire (59%) reported receiving a majority of their funding from federal sources, a comparable percentage of the multiply handicapped programs (54%) were state or locally supported. Federal sources also funded a large percentage (32%) of the multiply handicapped programs, and nearly 30% of the deaf-blind programs reported receiving state or local support. Overall, the primary sources of funding for both deaf-blind and multiply handicapped programs were federal and state or local sources.

Type of Program

Table 4 indicates the frequencies and percentages of deaf-blind, multiply handicapped, and combination programs which are day, residential, both, or other. Programs classified as "both" include programs which are primarily residential, but which also serve day pupils. Programs labeled "other" include programs which can not be considered as being primarily either day or residential, for example, those which are implemented totally by parents in the home.

While the overwhelming majority (63%) of programs for the multiply handicapped were day programs, the deaf-blind programs were fairly equally divided between day (43%) and residential (37%) settings. Only 5% of the reported multiply handicapped programs were residential.

TABLE 4

TYPE OF PROGRAM (DAY, RESIDENTIAL) BY TYPE OF POPULATION SERVED

Type of Program	Population Served							
	Deaf-Blind		Multiply handicapped		Both		Totals	
	n	%	n	%	n	%	n	%
Day	22	43.1	25	62.5	3	60.0	50	52.1
Residential	19	37.3	2	5.0	1	20.0	22	22.9
Both	7	13.7	6	15.0	-	--	13	13.5
Other	3	5.9	7	17.5	1	20.0	11	11.5
Totals	51	100.0	40	100.0	5	100.0	96	100.0

Setting of Program

In Table 5 can be found percentages of deaf-blind, multiply handicapped and combination programs located in a variety of settings.

TABLE 5

SETTING OF PROGRAM BY TYPE OF POPULATION SERVED

Setting	Population Served							
	Deaf-Blind		Multiply handicapped		Both		Totals	
	n	%	n	%	n	%	n	%
Agency	7	13.7	8	20.0	2	40.0	17	17.8
University	1	2.0	1	2.5	--	--	2	2.1
Hospital	2	4.0	--	--	1	20.0	3	3.1
Home	1	2.0	--	--	--	--	1	1.0
Reg. pub. school campus	11	21.5	19	47.5	--	--	30	31.3
Separate pub. school campus	4	7.8	7	17.5	1	20.0	12	12.5
State school	21	41.2	2	5.0	1	20.0	24	25.0
Private day school	--	--	2	5.0	--	--	2	2.1
Homebound	--	--	1	2.5	--	--	1	1.0
Private res. school	3	5.8	--	--	--	--	3	3.1
Other *	1	2.0	--	--	--	--	1	1.0
Totals	51	100.0	40	100.0	5	100.0	96	100.0

Other types of settings reported included such service locations as medical schools, sheltered workshops, multi-school programs, group homes, and consultation to other programs.

The largest percentage (41%) of deaf-blind programs reported were located in state schools, while nearly half of all multiply handicapped programs were found on regular public school campuses. Of the five programs reporting services to both deaf-blind and multiply handicapped, the majority (2) were located in agencies.

Geographical area served by program

Table 6 depicts the geographical areas served by reporting deaf-blind, multiply handicapped, and combination programs.

TABLE 6
GEOGRAPHICAL AREA SERVED BY PROGRAM,
BY TYPE OF POPULATION SERVED

Geographical Area	Population Served							
	Deaf-Blind		Multiply handicapped		Both		Totals	
	n	%	n	%	n	%	n	%
Multi-state	1	2.0	--	--	--	--	1	1.1
State	17	34.0	8	20.5	2	40.0	27	28.7
Within state	12	24.0	9	23.1	--	--	21	22.3
County	13	26.0	14	35.9	1	20.0	28	29.8
City	5	10.0	5	12.8	2	40.0	12	12.8
Neighborhood	1	2.0	--	--	--	--	1	1.1
Other *	1	2.0	3	7.7	--	--	4	4.2
Totals	50	100.0	39	100.0	5	100.0	94	100.0

* Other includes school districts, cooperative districts, and combination.

In general, deaf-blind programs reported serving larger geographical areas than did programs for the multiply handicapped, and were found in every geographical area listed. The largest percentage (36%) of multiply handicapped programs reported serving a county-wide area, while a similar percentage (34%) of deaf-blind programs reported serving an entire state, possibly reflecting the large number of deaf-blind programs reporting location in residential settings.

Characteristics of Respondents

Respondents: Administrative Questionnaire

Table 7 illustrates the frequencies and percentages of roles represented by individuals filling out the administrative questionnaire.

TABLE 7
RESPONDENTS: ADMINISTRATIVE QUESTIONNAIRE

Types of Personnel	n	%
Administrator	67	55.8
Supervisor	14	11.7
Teacher	23	19.2
Ancillary personnel	7	5.8
Other *	9	7.5
Totals	120	100.0

* Other includes therapists, nurses, aides, cottage personnel, business manager, social worker, psychologist, speech pathologist, child development specialist, and secretary.

Of the total number of kinds of personnel involved in filling out the administrative questionnaire, the majority (56%) were in administrative positions, with teachers having the second largest representation (19%). Because more than one type of individual could be involved in completing the questionnaire, the total number of personnel involved (120) exceeds the total number of programs (96). *

* NOTE: Many questions on the questionnaire were of the same type. Percentages in these cases are usually based upon the number of respondents to each particular section of the question. In some cases, they are based upon the number of respondents to any one of the sections of that question. In either case, percentages may exceed 100%; similarly, frequency of responses may exceed actual number of respondents.

Respondents: Teacher Questionnaire

Each of the ninety-six administrative questionnaires was accompanied by between zero (0) and ten (10) teacher questionnaires. The number of teachers involved in filling out any one questionnaire also varied considerably, ranging from one (1) to eight (8).

The following data describe the teacher population from whom questionnaires were received.

Level of education. Table 8 illustrates the levels of education of respondents to the teacher questionnaire. Again, percentages are based on the number of respondents to that item. For example, cell #2 under deaf-blind indicates that, of the 80 respondents from deaf-blind programs, the highest degree held by 13 (16%) was a high school diploma.

TABLE 8
HIGHEST DEGREE HELD BY TEACHING
PERSONNEL, BY TYPE OF POPULATION SERVED

Highest Degree	Population Served							
	Deaf-Blind		Multiply handicapped		Both		Totals	
	n	%	n	%	n	%	n	%
None	-	-	1	1.5	1	10	2	.1
High school	13	16.3	8	12.3	2	20	23	14.8
Pre-bachelor	10	12.5	5	7.7	-	-	15	9.7
Bachelor	35	43.75	27	41.5	3	30	65	42.0
Master's	20	25.0	17	26.2	3	30	40	25.8
Doctorate	-	-	-	-	-	-	-	-
Other	2	2.5	7	10.8	1	10	10	6.5
Totals	80		65		10		155	

Divided according to the categories above, the majority of teaching personnel in all 3 types of programs had bachelor's degrees, and substantial percentages in all 3 programs possessed master's degrees. By combining categories up to bachelor's, it can be seen that more than one-fourth (29%) of the teaching personnel in deaf-blind programs had less than bachelor's degrees, and 22% of teaching staff in multiply handicapped programs had not completed college. Thirty percent of the individuals employed in combination programs had high school diplomas or less. (It should be noted that paraprofessional staff were included among the respondents to the teacher questionnaire).

Time of degree. Table 9 shows the time of degree for teaching personnel reporting from deaf-blind, multiply handicapped and combination programs. As before, frequencies and percentages were computed on the basis of number of respondents to that item, not on total number of respondents. As each teacher questionnaire represented from one to eight teachers, frequencies exceed number of programs responding.

TABLE 9
TIME OF DEGREE OF TEACHING STAFF, BY TYPE
OF POPULATION SERVED

Time of Degree	Population Served							
	Deaf-blind		Multiply handicapped		Both		Totals	
	n	%	n	%	n	%	n	%
≤1950	5	8.3	2	3.8	2	25.0	9	7.4
>1950-1960	5	8.3	5	9.4	-	-	10	8.3
>1960-1970	13	21.7	16	30.2	2	25.0	31	25.6
≥1970	37	61.7	30	56.7	4	50.0	71	58.7
Totals	60	100.0	53	100.0	8	100.0	121	100.0

For all three types of programs, the highest degrees held were received in 1970 or later. Other substantial percentages of highest degrees were received between 1960 and 1970. The trend was the same across program types.

Certification. Table 10 reports the frequencies and percentages of various types of certification held by teaching personnel in deaf-blind, multiply handicapped and combination programs. In this case, figures presented exceed the number of programs responding for two reasons: (1) from one to eight individuals were represented by each teacher questionnaire, and (2) some individuals held more than one type of certification.

The largest percentage of personnel working with the multiply handicapped (25%) were reported to be certified in mental retardation. Another substantial percentage (19%) were certified in elementary education, and 9% were certified in secondary education.

TABLE 10
CERTIFICATION HELD BY TEACHER RESPONDENTS, BY TYPE
OF POPULATION SERVED

Certification	Population Served							
	Deaf-blind		Multiply handicapped		Both		Totals	
	n	%	n	%	n	%	n	%
Administrator	3	2.1	1	1.0	-	-	4	1.3
Supervisor	1	.7	-	-	-	-	1	.3
Secondary	9	6.3	9	9.3	2	6.7	20	6.3
Elementary	26	18.4	18	18.6	5	16.7	49	15.4
Early child-hood-regular	3	2.1	1	1.0	3	10.0	7	2.2
Vocational ed.	1	.7	1	1.0	-	-	2	.6
Speech	10	7.0	4	4.1	2	6.7	16	5.0
Mental retardation	14	9.9	24	24.7	3	10.0	41	12.9
Vision	15	10.6	4	4.1	3	10.0	22	6.9
Deaf	16	11.3	3	3.1	3	10.0	22	6.9
Deaf-blind	12	8.5	1	1.0	2	6.7	15	4.7
Crippled & other health impaired	3	2.1	6	6.2	2	6.7	11	3.4
Learning disabilities	7	4.9	5	5.2	-	-	12	3.8
Emotional disturbance	2	1.4	6	6.2	-	-	8	2.5
Early child-hood-special	3	2.1	1	1.0	2	6.7	6	1.9
None	10	7.0	8	8.3	2	6.7	20	6.3
Other*	7	4.9	5	5.2	1	3.3	13	4.1
Totals	142	100.0	97	100.0	30	100.0	319	100.0

*Other includes physical education, social work, physical therapy, music, and multiply handicapped.

The largest percentage of teaching personnel working with the deaf-blind had certification in elementary education (18%). Substantial percentages were certified in mental retardation (10%), vision (11%), and deaf education (11%). Nine percent of those teaching the deaf-blind reported having certification in that area.

Summary

Of the programs reporting, the deaf-blind programs were younger than those for the multiply handicapped. The majority of all programs were located in areas with greater than 50,000 population. The deaf-blind programs were primarily federally funded, while the multiply handicapped programs received the majority of their support from state and local sources. Most of the multiply handicapped programs were day programs, while the deaf-blind programs were roughly evenly divided between day and residential settings. The largest percentage of deaf-blind programs were located in state schools, while nearly half of the multiply handicapped programs were located on regular public school campuses.

Administrative questionnaires were filled out by a variety of personnel, with administrators constituting the largest percentage. The majority of personnel filling out the teacher questionnaire possessed bachelor's degrees, and nearly half of the programs reported personnel with master's degrees. The majority of these degrees were received in 1970 or later. The types of certification held by these individuals varied widely. The majority of programs for the multiply handicapped had personnel certified predominately in mental retardation and elementary education; the same was true for the majority of programs for the deaf-blind, with additional large percentages reported in the areas of vision and deaf education.

CHAPTER III
DEFINING THE POPULATIONS SERVED

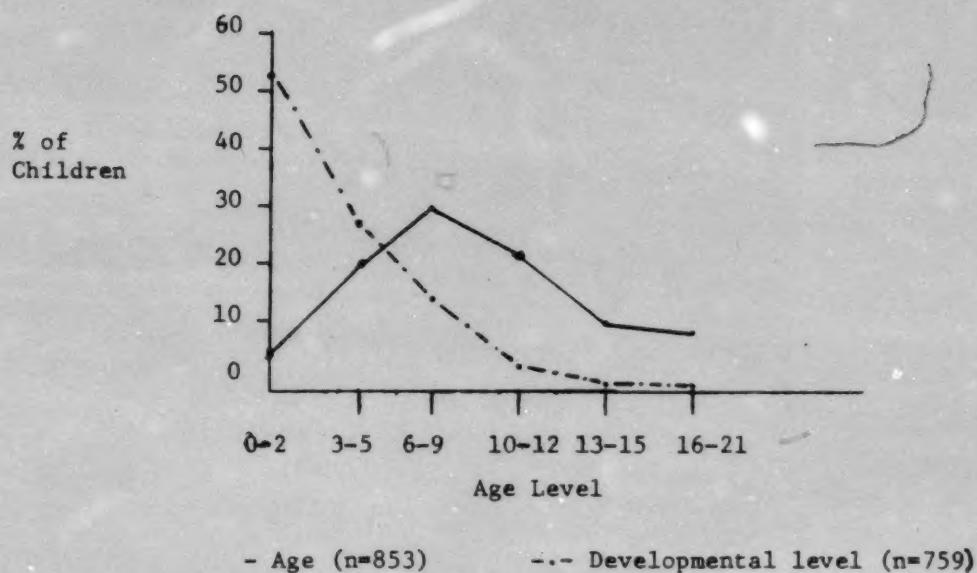
Demographic Data

Children served by the programs returning the questionnaires exhibited a wide variety of characteristics.

Figures 1 and 2 display the ages and developmental levels of children as reported by programs serving deaf-blind and other multiply handicapped children.

Figure 1

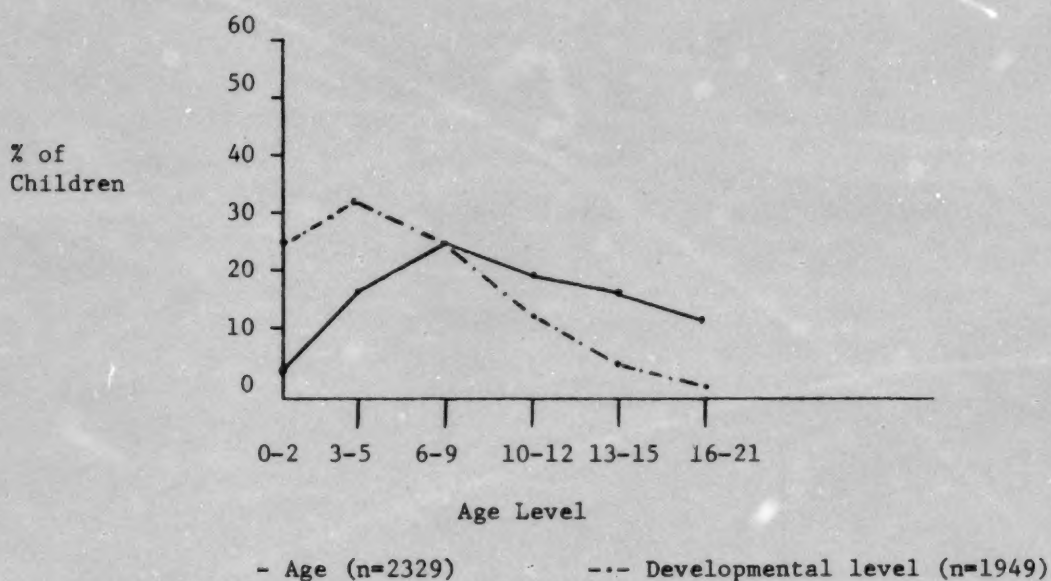
Ages and Developmental Levels of Children
in Programs for Deaf-Blind



Although only 7 per cent (7 %) of the students in deaf-blind programs were chronologically 0 to 2 years old, 53% of deaf-blind students ages 0-21 functioned at a 0 to 2-year-old level. The chronological 0 to 2 year level contained the smallest percentage of children of all the age categories, while the developmental 0 to 2 year old level contained the largest percentage of all the categories. That deaf-blind children were for the most part developmentally behind their chronological ages is apparent. Ten per cent of the deaf-blind children were ages 16-21, but only .3 per cent (.3%) of the students were reported to be functioning at this level. Similarly, although 11 per cent (11%) of the population was 13 to 15 years old, only .5 per cent (.5%) of the deaf-blind children represented in this study functioned at that level. The largest percentage (30%) of deaf-blind children were between the ages of 6 and 9.

Figure 2

Ages and Developmental Levels of Children
in Programs for Multiply Handicapped



Multiply handicapped children were also, for the most part, functioning below chronological age level. However, the difference between age and developmental level was not nearly so dramatic for the multiply handicapped as it was for the deaf-blind. The largest percentage (26%) of multiply handicapped children were 6 to 9 years old, while 31% of the multiply handicapped students represented in this study functioned at the 3 to 5 year old level. Although only 4 percent of multiply handicapped children were 0 to 2 years old, one fourth of the population sampled functioned at this level (for deaf-blind, these percentages were 7 and 53%, respectively). Perhaps the most striking contrasts were apparent at the upper age levels. Roughly the same percentages of deaf-blind and multiply handicapped were 10-12 years of age (22% and 21%), yet 12 percent of the multiply handicapped, as compared to 4% of the deaf-blind, functioned at this developmental level. Larger percentages of multiply handicapped students were ages 13 to 21; this could account in part for the larger percentage functioning at the 10 to 12 year old level. It should be pointed out that the term "multiply handicapped", as used by the sample respondents, included such a wide variety of conditions and combinations that all interpretations of data for the multiply handicapped should be guarded (see Chapter III).

Tables 11 and 12 depict the types of multiple handicaps reported for the two populations of children.

As might be expected, the major multiple handicap reported for the children in deaf-blind programs was a combined vision and hearing handicap. Thirty-six percent (36%) of the enrollees possessed this combination. Mental retardation, another prevalent handicap, occurred most often in conjunction with a visual handicap (16% of the reported students) and less frequently (10%) in conjunction with a hearing impairment. Overall, mental retardation was reported to be present in 32% of the deaf-blind students. Physical handicaps, present in 20% of the students, occurred most frequently in combination with blindness, mental retardation, and deafness. Learning disabilities and emotional disturbance were reported rather infrequently as major handicaps. Fifty-eight percent of the deaf-blind students were either partially hearing or deaf, and 70% were either blind or partially sighted. (It is to be noted that the table represents combinations of only two major handicaps. The national incidence figure for handicaps is 2.2 per person, and many children, especially rubella babies, have more than 2 major handicaps. However, this information is not reported in the table).

TABLE 11

TYPES OF MULTIPLE HANDICAPS REPORTED
FOR CHILDREN IN DEAF-BLIND PROGRAMS

	Partially seeing		Blind		Mentally retarded		Physically handicapped		Learning disabled		Emotionally disturbed		Other		Totals	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Partially hearing	27	11.3	17	7.1	13	5.4	6	2.5	4	1.7	3	1.3	0	0.0	70	29.3
Deaf	20	8.4	23	9.6	11	4.6	9	3.8	3	1.3	2	0.8	1	0.4	69	28.9
Partially seeing					16	6.7	6	2.5	7	2.9	3	1.3	2	0.8		
Blind					22	9.2	11	4.6	3	1.3	9	3.8	1	0.4		
Mentally retarded							10	4.2	2	0.8	1	0.4	1	0.4		
Physically handicapped																
Learning disabled							2	0.8	2	0.8	2	0.8	1	0.4		
Emotionally disturbed											1	0.4	0	0.0		
Totals	81	33.9	86	36.0	76	31.8	47	19.7	22	9.2	21	8.8	6	2.5		

(NOTE: Totals are computed for entire categories, rather than for column totals alone.)

TABLE 12
TYPES OF MULTIPLE HANDICAPS REPORTED
FOR CHILDREN IN PROGRAMS FOR MULTIPLY HANDICAPPED

	Partially seeing		Blind		Mentally retarded		Physically handicapped		Learning disabled		Emotionally disturbed		Other	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Partially hearing	9	3.5	5	2.0	16	6.3	10	3.9	9	3.5	5	2.0	2	0.8
Deaf	4	1.6	9	3.5	13	5.1	6	2.4	6	2.4	4	1.6	2	0.8
Partially seeing					12	4.7	5	2.0	4	1.6	3	1.2	2	0.8
Blind					13	5.1	6	2.4	0	0.0	4	1.6	1	0.4
Mentally retarded							42	16.5	8	3.1	14	5.5	5	2.0
Physically handicapped														
Learning disabled									11	4.3	5	2.0	5	2.0
Emotionally disturbed										10	3.9		2	0.8
Totals	39	15.4	38	15.0	123	48.9	90	35.4	50	19.7	47	18.5	21	8.3

(NOTE: Totals are computed for entire categories, rather than for columns alone).

A wide variety of multiple handicaps were reported. The most frequently occurring multiple handicap was mental retardation plus a physical handicap. Nearly 17% of children in programs for the multiply handicapped possessed this combination. Thirty-nine percent (39%) of the multiply handicapped had hearing impairments, and 30% had visual impairments. Nearly half of the students were mentally retarded in addition to another handicap. Thirty-five percent (35%) of the students were physically handicapped in addition to one other handicap. (Again, it must be noted that although some children may possess more than 2 handicaps, only combinations of two are reported in this table). The only multiple handicap not reported as occurring in the population was blindness plus a learning disability. Nearly 6 percent (6%) of multiply handicapped students were mentally retarded/emotionally disturbed, while 11 percent were mentally retarded/hearing impaired. Ten percent were mentally retarded/visually impaired. Nearly twenty percent of all multiply handicapped children represented reportedly were learning disabled, and 19 percent were considered to be emotionally disturbed. These two handicaps were about twice as frequently reported for the multiply handicapped as they were for deaf-blind.

While most definitions of any multiple handicap involve the presence of at least two handicaps, many multiply handicapped children have more than two handicaps. Table 13 represents the percentage of programs reporting a majority of children with more than two major handicaps.

TABLE 13
PERCENTAGE OF PROGRAMS WITH 50-100% ENROLLEES HAVING MORE
THAN TWO MAJOR HANDICAPS, BY TYPE OF POPULATION SERVED

Population	n	%
Deaf-blind (n=43)	35	81.4
Multiply handicapped (n=39)	12	31.6
Both (n=3)	2	66.7

Of the programs serving the multiply handicapped, which one might expect to have large percentages of children with more than 2 handicaps, only 32 percent (32%) reported serving children with more than two impairments. Eighty-two percent (82%) of the deaf-blind programs, on the other hand, contained children with more than 2 handicaps. This is perhaps due to the presence of large numbers of post-rubella children, who commonly possess handicaps in addition to vision and hearing impairments.

Defining Deaf-Blind and Multiply Handicapped

Many times, words seem to hinder communication. The present study has encountered many instances of this phenomenon, with the same words having different meanings within different contexts, and different words being used to convey the same meaning.

The most outstanding example may be found in the definitions for "deaf-blind" and "multiply handicapped." Enumeration and discussion of the meanings implied by these terms is interesting in itself; it is also necessary as a context within which to interpret this report.

Definitions of these two terms differ along the dimensions of explicitness and level of formulation, as well as in their context and interpretation. These dimensions can have consequences for heterogeneity of the population served, for sharing of a common orientation both between and within programs, and for accountability.

Explicitness of Definition of Population Served

Table 14 shows percentages for a continuum of explicitness of definition for the two terms, as reported in the two types of questionnaires.

TABLE 14

EXPLICITNESS OF DEFINITION BY TYPE OF POPULATION SERVED,
AS REPORTED BY ADMINISTRATORS AND TEACHERS

Explicitness of Definition	Population Served					
	Deaf-Blind		Multiply Handicapped		Both	
	A	T	A	T	A	T
	(n=42)	(n=41)	(n=38)	(n=34)	(n=3)	(n=3)
	%	%	%	%	%	%
Official, in writing	71.0	85.0	74.0	68.0	100.0	100.0
Official, not in writing	14.0	5.0	5.0	9.0	---	---
In writing, not official	5.0	---	8.0	12.0	---	---
Not in writing, not official	10.0	10.0	13.0	12.0	---	---

A = Administrator; T = Teacher

The vast majority of all respondents, both teachers and administrators, for all three types of programs, reported using officially written definitions of the handicapped population they serve. It is to be noted, however, that some deaf-blind and multiply handicapped programs currently providing services to children reported having neither official nor written definitions of the populations they serve.

Level of Definition

Table 15 shows the level of formulation of the definition of the population by type of population served, as reported on the administrative questionnaires.

TABLE 15
LEVEL OF DEFINITION BY TYPE OF POPULATION SERVED

Level of Definition	<u>Population Served</u>		
	Deaf-Blind	Multiply Handicapped	Both
	(n=40) %	(n=38) %	(n=3) %
Classroom	--	--	--
Program	30.0	31.6	--
State	7.5	47.4	33.3
Region	15.0	10.5	66.7
BEH	45.0	5.3	--
Other *	2.5	5.3	--

*Other included AAMD, board of directors, staff meetings, and proposals.

Nearly half (45%) of the deaf-blind programs defined their population according to BEH guidelines, while nearly half (47%) of the multiply handicapped programs served children according to state definitions. (It is to be remembered that the majority of deaf-blind programs are federally funded to some degree, while the multiply handicapped programs are primarily state and locally supported). Roughly equal percentages

(30 and 32%, respectively) of deaf-blind and multiply handicapped programs reported operating under definitions of handicapping conditions formulated at the program level.

Definition of Deaf-Blind

The most common definition used by programs reporting services to deaf-blind was that formulated by the Bureau of Education for the Handicapped (BEH). In essence, BEH defines deaf-blind as a combination of auditory and visual handicaps, the combination of which is severe enough to prohibit education in programs designed for either one of the handicaps alone. The commonality of this definition results, of course, from the presence of the regional network of services to deaf-blind, funded through BEH. There were, however, a few differences noted in definition; these differences were directly related to the orientation of the program offering the definition. For example, one therapeutically oriented program defined deaf-blind as sensory problems (in the areas of vision and hearing) which prevent realization of life-centered goals. Programs set within schools or organizations primarily serving other types of handicapped populations often defined the deaf-blind as having deafness and blindness as major handicaps in addition to the primary type of handicap served. For example, a school primarily offering services to the physically disabled might define deaf-blind as these sensory impairments in addition to a physical disability. A school for the blind or deaf might define deaf-blind in terms of a need for support services to meet the needs caused by the other handicap.

In addition to these differences in orientation, differences in interpretation were reported. These fell primarily into the categories of legal or functional interpretation. Legal definitions for blindness were stated in terms of actual measured acuity and visual field, while those for deafness were stated in terms of decibel loss. Functional definitions were stated as degree of use of vision and hearing. At times, hard-to-test children (particularly in state schools) were assumed to be deaf-blind until they demonstrated otherwise, and thus could be included in the services. Still another variation was the inclusion of perceptual problems, in either vision or in hearing. The distinction between these two kinds of definitions, the legal and the functional, is extremely important, as (1) it defines the parameters within which children are accepted into programs, and (2) may serve to hinder communication between programs.

Definition of Multiply Handicapped

There is no governmental network for services to the population called multiply handicapped such as exists for deaf-blind. Probably as a consequence, at least in part, the term "multiply handicapped" is not defined specifically on a national level. Instead, it is included within the definition of severely handicapped which was formulated by the BEH Task Force on Severely Handicapped Children and Youth. In essence, this definition defines a severely handicapped child as one whose impairment is of such severity that he can not be served in traditional regular or special education programs. A multiply handicapped child is mentioned as one sub-category of this definition.

Funding of programs on the basis of services to this population is also a relatively new phenomenon. Only ten (10) such programs were funded by BEH in 1974-75 (See Appendix C for list).

Because no organized network such as exists for deaf-blind exists for multiply handicapped as a population, because funding patterns do not demand any centrally defined definition, and because the term multiply handicapped is not specific, the BEH definition for this population was not reported as often as the BEH definition of deaf-blind. Rather, there were a great variety of definitions reported by programs serving the multiply handicapped.

These definitions generally fell into categories depending upon the orientation of the program, as did the variations from the BEH definition of deaf-blind. One category of definitions was that in which one of the multiple handicaps was physical. Other handicaps named in combination with the physical impairment were in the areas of vision, hearing, retardation, speech, and emotional disturbance. At least one program defined multiply handicapped as the presence of two or more physical impairments. A second category combined other handicaps with a sensory handicap. For example, a multiply handicapped child was defined by a program in a school for the blind as visually impaired plus another handicap. (Deaf-blind was excluded from this definition). A third major category, and the most predominant one, defined multiply handicapped as mental retardation combined with another handicap. A more specific definition within the same category defined multiply handicapped as measured IQ at least two standard deviations below the mean, combined with another handicap.

While all of the above defined multiply handicapped as the presence of at least two handicaps, several programs extended the definition along the dimension of severity, and included impairments which were not necessarily multiple, but which were severe. For example, children with measured IQ's in the severe and profound range were included by several programs (and in fact, much literature fails to distinguish between multiply handicapped and severely or profoundly retarded, possibly because they so often occur together).

Several programs indicated that they do not define multiply handicapped because their programs are meant for one handicapping condition, such as physical. The children, however, were reported to actually have more than one handicap.

In addition to definitions listing the presence of types of handicapping conditions, there were definitions based primarily on needs. Multiply handicapped was thus defined as:

- (1) two handicaps, each requiring special education services,
- (2) handicaps requiring a combination of technologies, and
- (3) handicaps requiring extraordinary modification of methods.

Thus, while the term deaf-blind, as used by programs serving deaf-blind, differs primarily in interpretation, the term multiply handicapped has a wide variety of meanings. The commonality between all of these definitions seems to be that, because of a combination of handicaps, extraordinary services may be needed.

In view of the fact that teachers are being certified as teachers of the multiply handicapped, and that, in addition, literature is being accumulated on the multiply handicapped, it would seem that a need has arisen for some common definitions so that the term multiply handicapped can communicate at least similar meanings to individuals with different orientations.

The variety of meanings implied by both terms, deaf-blind and multiply handicapped, should be kept in mind in reading any literature on the subject, including this report.

CHAPTER IV

DEFINING INDIVIDUALIZATION

Because little agreement exists in the literature concerning the definition of individualization, simple definitions of the term, no matter how explicit, present only a limited picture of the way in which it is actively interpreted and used. At the very least, the definitions vary as to the nature of the components of the definition (from physical classroom characteristics to pupil behaviors to instructional sequences), the number of such components included in a definition (one or many), the individual responsible for arranging the environment (administrators, teachers or pupils) and, perhaps most importantly, the process by which the components are chosen in any given instance. The incomparability of such definitions may in part be alleviated by examining the stated goals of individualization in addition to specific definitions. Therefore, definitions and goals of individualization will be presented together in order to promote the broadest understanding of the way in which the term is currently being interpreted and implemented by both writers and practitioners.

Goals and Definitions from the Literature

The goals of individualization, as compiled from their repeated appearance in the literature, are:

1. To provide a more democratic educational system,
2. To cultivate individual differences,
3. To provide a motivating environment, and/or most commonly,
4. To develop learners who are self-directed, independent, and self-appraising.

Many definitions of individualization, i.e., the manner in which these goals are to be met, generally revolve around the presence or absence of one of three types of characteristics: physical/environmental characteristics, areas of pupil decision-making, or procedures for prescriptive teaching. Examples of each will hopefully serve to eliminate some of the confusion surrounding the comparison of three such diverse types of definitions.

Some of the more common physical/environmental characteristics associated with or used to define individualization include:

1. Open space
2. Team teaching
3. Non-grading
4. Continuous progress
5. Self-paced materials
6. Monitoring of progress
7. Feedback and change

Some authors define the presence of one or more of the above as individualization itself. In other instances, although the presence of the characteristics is not alone assumed to comprise individualization, the manner in which such characteristics contribute to individualization is not made explicit.

The definitions composed in whole or in part of pupil decision making are those in which the student has control over decisions concerning:

1. Goals and objectives
2. Content
3. Grouping
4. Materials
5. Learning method
6. Activities
7. Monitoring of progress
8. Feedback and change

In other words, the student designs and carries out his own instructional sequence within a certain context. The role of the teacher in these instances is commonly that of (1) resource person, or (2) manager of the learning environment. The amount of control exerted by the teacher varies, of course, with the situation and with student characteristics, but in general the teacher is a facilitator rather than the primary agent of instruction.

The definitions of individualization which are based on some form of prescriptive teaching generally include the following characteristics:

1. Appraisal of instructional level
2. Specific statement of goals and objectives
3. Specifically designed instructional methods
4. Specifically stated activities
5. Continuous record-keeping
6. Feedback and change

Again, in some instances, the very presence of such an instructional sequence is stated as constituting individualization. In other instances, it is implied by some authors that the relationship between such a sequence and individualization is self-evident, and no further explanation is given.

Another way in which individualization is defined is concerned less with the presence or absence of characteristics than it is with options for flexible use of physical facilities, organizational patterns, teacher roles, curricula, methods, materials, and media. Similarly, individualization may be defined as decisions based on student needs. In some definitions, then, emphasis is on the process rather than on the characteristics of individualizing.

These definitions, in addition to being quite broad, are drawn from regular education literature, rather than from literature directly concerning handicapped populations. The question may therefore be raised as to whether or not these definitions, characteristics, and processes can be directly translated into use with the severely or multiply handicapped child. Surface examination tends to indicate that they may not be directly applicable, in particular those definitions in which the child exercises primary control over his own instruction.

Literature directly relating individualization to programming for handicapped children is quite scarce. In special education, the necessity for individualization seems to be assumed from the nature of the population, and being assumed, is not dealt with either explicitly or directly.

One notable exception is the Callier Center's comprehensive report on its use of a systems approach to individualizing instruction for deaf children (Powell & Burroughs, 1973). The approach first identifies the components which are central and tangential to the educational process. These components include not only instructional elements (personnel, materials, equipment, space, etc.) but also extend to environmental variables such as parents, outside resources, and the community, which directly or indirectly impinge upon the child. Obviously, such a definition of individualization takes into account far more variables or influences than traditional definitions.

Second, the system is designed to allow for an integrated and systematic interaction between components within the system, and to accommodate itself to changes in the universe of relevant components depending upon feedback from the instructional system. Physical characteristics and other components are important in their effect upon the entire interactional system, and are affected by it. The child is the focus of this activity, and also in turn actively affects all of the components. Each child's interaction with the components is thus unique, and his educational program is in turn unique.

Goals and Definitions from the Study

The goals of individualization, as stated by the practitioners queried, are more explicit than those offered in the literature on "normal" populations. In addition, the goals fall into two major categories which can be viewed as comprising a time continuum. For example, many of the more explicit goal statements may be contained within the term "independence," which is one of the major goals presented in the literature. These goals, as expressed by persons filling out the questionnaire used in this study, are enumerated below under the headings "Now" and "Future," a difference between "What we want the child to be when he leaves our program" and "What we want the child to be in the future." In some instances, the "future" goals can be viewed as time extensions of the "now" goals:

Now Goals

1. Successful entry into another environment (community, another school)
2. At highest academic level possible
3. Progressing through developmental sequence
4. Development of social skills
5. Development of environmental awareness (self, others, environment)
6. Reduction of stereotypic and self-abusive behaviors
7. Reduction of dependency
8. Development of independence in self-help
9. Development of useful communication skills
10. Use of residual sensory capabilities
11. Development of positive self-image
12. Salable skill
13. Ambulatory
14. Development of recreation skills

Future Goals

1. Is functional member of society
2. Has developed to fullest potential
3. Blends into community
4. Is independent in:
 - vocation
 - living skills
 - recreation
5. Has constructive independent activity
6. Functions in a family unit

In planning services to meet these goals, each program or school operates under its own definition of individualization, which may or may not be in common with other programs or schools. In addition, the explicitness of the definition (officiality, whether or not it is in writing) varies considerably. Table 16 depicts the level of formulation of definitions under which services are currently being delivered by programs participating in this study, while Table 17 depicts the status of these programs in relation to the explicitness of the definition of individualization under which they are currently functioning.

Table 16 shows that, in programs for both the deaf-blind and the multiply handicapped, the definition of individualization was formulated primarily at the program level. However, nearly one-fifth (19%) of the multiply handicapped programs reported using a state level definition of individualization.

Table 17 shows that, according to administrators, programs for all types of handicaps have a substantial percentage of explicit definitions (official and in writing). However, teachers reported overwhelmingly (60%, 60% and 80% for deaf-blind, multiply handicapped, and both programs) that the definition of individualization was neither in writing nor official. At

TABLE 16

LEVEL OF FORMULATION OF DEFINITION OF INDIVIDUALIZATION
AS REPORTED BY ADMINISTRATORS, BY TYPE OF POPULATION SERVED

Level	Population Served		
	Deaf- blind	Multiply handicapped	Both
	(n=43)	(n=37)	(n=3)
	%	%	%
Classroom	11.5	5.4	33.3
Program	69.8	56.8	33.3
State	9.3	18.9	-
Region	4.7	8.1	33.3
BEH	-	-	-
Other	4.7	10.8	-
Totals	100.0	100.0	100.0

TABLE 17

EXPLICITNESS OF DEFINITION OF INDIVIDUALIZATION
BY TYPE OF POPULATION SERVED

Explicitness of Definition	Population Served					
	Deaf- blind		Multiply handicapped		Both	
	A	T	A	T	A	T
	%	%	%	%	%	%
Official and in writing	32.6	19.0	36.8	21.6	66.7	-
Official, not in writing	25.6	11.9	18.4	8.1	-	-
In writing, not official	11.6	9.5	10.5	10.8	-	20.0
Neither	30.2	59.5	34.2	59.5	33.3	80.0

A = Administrative questionnaire; T = Teacher questionnaire

best, this can be interpreted as meaning that even if officially written definitions exist for programs, they are not known to implementers, and thus are not being used as the direct basis for individual programming for children. Lacking this comprehensive basis for interpreting and guiding what is done with children, some programs may thus lack systematic approaches to individualizing. In addition to reducing efficiency, such an occurrence may also tend to mask whatever success a program has had in individualizing services for children. Based on its definition of individualization, and a possibly non-systematic method of data collection and interpretation resulting from this definition, a program may erroneously appear to be deficient or primitive in terms of individualization of services.

As with the content of the definitions of individualization gathered from the literature, there is great diversity among the definitions offered by the questionnaire respondents. In addition, there is, as would be expected, more of a slant toward the special needs of the handicapped child.

The following characteristics were either named as being associated with, or were used to define, individualization. As in the literature summary, each of the characteristics sometimes comprised the total definition and at other times was combined with one or more of the others in various ways. For example, individual assessment of handicaps might be stated as a total definition of individualization, combined with individual assessment of developmental levels, or combined with both developmental levels and goals and objectives set by priority.

Characteristics within definitions of individualization thus included:

1. Individual assessment of
 - a. handicaps
 - b. abilities
 - c. limitations
 - d. behaviors
 - e. learning modalities
 - f. developmental levels
2. Individual assessment by a variety of professionals
3. Goals and objectives which
 - a. are set by priority
 - b. are reassessed regularly
 - c. move the child to the next level
4. A comprehensive program meeting needs in the areas of
 - a. therapy
 - b. medical
 - c. family
 - d. education
 - e. psychological
 - f. recreation
 - g. social
5. An educational plan which is
 - a. individual
 - b. prescriptive
 - c. written

- d. updated daily
- e. a composite of individual assessments combined to form a picture of the total child
- 6. A curriculum that is modifiable
- 7. Instruction which is
 - a. one-to-one
 - b. flexible in time
 - c. flexible in method
- 8. Evaluation which is
 - a. on-going
 - b. systematic
 - c. tied to the written plan

It is obvious that many aspects of the definition from the survey mesh closely with those found in the literature. Both sources have as the major goal of individualization the development of independent adults who function to the maximum limits of their potential. Both stress the creation of an environment which is at once the least restrictive possible and which encourages growth toward independence. Both emphasize the process of fitting the program to the child's needs, along with continuous monitoring and feedback to insure this fit.

The words used to describe the characteristics of individualization are also very much alike. For example, "self-paced" and "continuous" are prevalent concepts in both sources, and both include some or all aspects of prescriptive teaching in the definitions. Thus the basic processes, goals, and characteristics of individualization are similar.

Despite these broad similarities, there seem to be differences in the focus of the definitions and in the breadth of areas covered by individualization. For example, while there is much overlap, the focus in the regular education literature tends to be upon the presence of certain physical characteristics (e.g., materials and space), while for practitioners in the areas of deaf-blind and multiply handicapped it tends to be upon adult-child interaction. These individuals seem to feel that, while the presence of physical characteristics may facilitate the interaction, such presence does not constitute individualization.

While in the literature the educational program is confined to the child within the classroom, or the school as it impacts on the classroom, in the field the educational program extends to medicine, therapy (speech, occupational, physical), and to the family. While the focus in the literature is on the independent "learner" and "decision maker," the emphasis in the field seems to be on the independent "person." That is, those aspects which are taken for granted in the literature concerned with the average learner are not taken for granted by educational programs for the multiply handicapped. The result is that the focus of individualization is much broader (i.e., the total life-space of the person) and at the same time much more basic (e.g., independence in self-help skills). With the non-handicapped population, the emphasis is upon the cultivation of individual differences as a means of fostering independence; with the severely or multiply handicapped, it is upon the minimization of such differences. The type of independence assumed

in the normal population, and which individualization is directed toward going beyond, is the goal of education for the multiply handicapped. This is the independence which comes from being as near normal as possible, from being able to "not stand out in the crowd." In other words, for the multiply handicapped, normalization equals independence.

What emerges from the responses from practitioners working with multiply handicapped children is the need for a philosophy of education different from that for "normal" children. The characteristics of the multiply handicapped child demand that the responsibilities of the educational institution be extended to encompass all aspects of the child's environment which may affect his learning, e.g., medical, therapy, and family. This broadening of scope has a direct bearing on a meaningful definition of individualization. If one of the purposes of a definition is to guide action, then such a definition must be broad enough to take into account, if necessary, all of the influences which may impinge either directly or indirectly upon the child.

A simple list of characteristics, although useful as a source of ideas, may not fit the needs of a particular child. Rather than being explicit about characteristics, a definition of individualization should be explicit about process; such a definition would then be applicable to the needs of any child or any population of children.

The concept of individualization as a process can be equally applied to non-handicapped and handicapped populations. In fact, the definition of individualization as a prescriptive approach which is taken from the regular education literature describes such a process. While the needs of the two populations may differ radically, the processes for meeting them should remain the same. With the non-handicapped or less severely handicapped populations, this process may be concerned solely with the instructional process; with the multiply handicapped, while the instructional process remains the school's primary responsibility, the process of individualization will have to extend beyond instruction.

The following definition is proposed as one which encompasses both the philosophy and the content expressed in the literature and in the field; which helps to answer the questions of not just "what," but "why," "when," "where," "how," and "how long"; which can fit the needs of any child, and which can be a useful guide to planning, action, and evaluation. It is based on a systems approach to planning.

Individualization is a decision-making process which follows a systematic sequence of events beginning with identification of needs and identification of environmental elements which may affect these needs, progresses to coordination of elements to meet these needs, provides evaluation to insure that what is planned is actually occurring, and utilizes evaluation results to change both the presence and coordination of elements.

This definition is at once simple enough to be used as a basis of communication and action, and at the same time comprehensive enough to fit any child or population of children. The question is not which characteristics define

individualization, but rather, out of the total universe of possible alternatives, which characteristics define individualization for this particular child. The task now becomes one of identifying the universe of alternatives.

The following systems model (Figure 3) is designed to reflect both the decision making sequence and the broad scope of services necessary for multiply handicapped children.

The central line of the model **represents** the instructional program. It is similar to other decision-making sequences, and for a non-handicapped child it represents the limits of the school's responsibility. As handicaps become more severe, and as additional services are needed in areas which are not central to, but nevertheless affect, the instructional process, the scope of the school's responsibility broadens to include other areas (e.g., therapy, family, medicine).

As with all models, many of the boundaries are artificial; services can not in reality be so neatly divided. An attempt has been made to indicate the flexibility of the boundaries by arrows symbolizing interaction between sections. In addition, "Phase I: Defining needs" is depicted as a circular process, rather than in any predetermined sequence, in an attempt to reflect the variations of sequence which may occur between programs and schools.

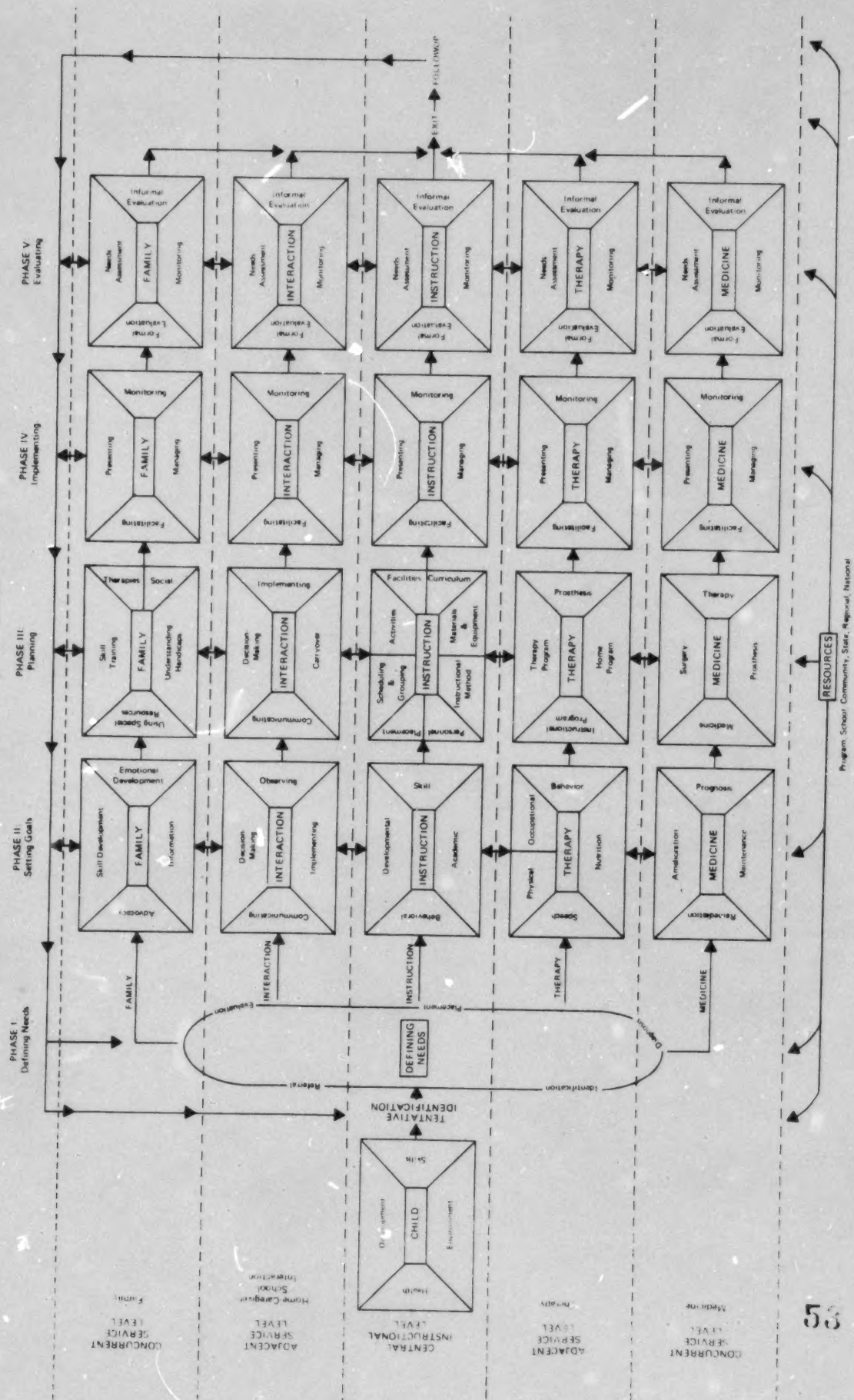
By defining individualization as a decision-making process within a certain sequence of events, and by presenting this sequence as a model, a common orientation has hopefully been established. The remainder of the report, based in this common orientation, will examine the alternatives available at each stage of the sequence and their relationship to individualization. Because the model grew from answers to many questions, rather than the questions having been written on the basis of the model, many areas may not be dealt with as comprehensively as they perhaps should be.

The following questions will be asked of the data to be presented:

1. How is this stage of the sequence important to individualization?
2. What are people in the field doing in this area?
3. What other alternatives are there in this area?

Finally, the role of the written child-by-child plan as it relates to the process of individualization will be examined.

Figure 3
SCOPE AND SEQUENCE OF
INDIVIDUALIZED SERVICES
IN EDUCATIONAL PROGRAMS
FOR MULTIPLE IMPAIRED CHILDREN



BIBLIOGRAPHY

- Blake, H.E. and McPherson, A.W. Individualized instruction - Where are we? In Talbert, E.G. and Frase, L.E. (Eds.). Individualized Instruction: A Book of Readings. Columbus: Charles Merrill, 1972.
- Bolvin, J.O. and Glaser, R. Developmental aspects of individually prescribed instruction. Audio Visual Instruction, 1968, 13, 829-831.
- Burroughs, J.R. and Powell, F.W. Can we systematically meet the needs of all deaf children? Peabody Journal of Education, April, 1974, 171-179.
- A Climate for Individuality. Joint Statement of AASA, ASCD, NASSP, DRE (NEA Departments). NEA Journal, 1966, 55, 34-35.
- Drumheller, S.J. Handbook of Curriculum Design for Individualized Instruction: A Systems Approach. Englewood Cliffs, N.J.: Educational Technology Publications, Inc., 1971.
- Duane, J.E. (Ed.) Individualized Instruction - Programs and Materials. Englewood Cliffs, N.J.: Educational Technology Publications, Inc., 1973
- Esbensen, T. Working with Individualized Instruction. Belmont, California: Fearon Publishers, 1968.
- Falck, V.R. Application of management principles to instructional methods. Exceptional Children, 1973, 39, 401-403.
- Frase, L.E. Open space. In Talbert, E.G. and Frase, L.E. (Eds.). Individualized Instruction: A Book of Readings. Columbus: Charles Merrill, 1972.
- Gibbons, M. Individualized Instruction: A Descriptive Analysis. New York: Teachers College Press, 1971.
- Hammer, E.K. The new technique is you. Paper presented at the Mountain Plains Regional Center Workshop on New Techniques for Working with Deaf-Blind Children - III, Santa Fe, October, 1974.
- Haring, N.C. New Curriculum Design in Special Education. (ND)
- Heathers, G. Overview of innovations in organization for learning. Interchange, 1972, 3, 47-68.
- Howes, V.M. Individualization of Instruction: A Search. Los Angeles: Educational Inquiry, Inc., 1967.

Howes, V.M. Individualization of Instruction: A Teaching Strategy. New York: MacMillan Publishing Company, 1970.

Individualization in Schools: The Challenge and the Options. Washington: National School Public Relations Association, 1971.

Newson, R.S., Eischers, R. and Looft, W.R. Intrinsic individual differences: A basis for enhancing instructional programs. Journal of Educational Research, 1972, 65, 387-392, 396.

Peter, L. Individual Instruction. New York: McGraw-Hill Book Company, 1972.

Powell, F.W., and Burroughs, J. (Eds.). A Systems Approach to Individualizing Instruction for Young Deaf Children. Callier Center for Communication Disorders, Dallas, 1973.

Proger, B., Mann, L., Burger, R., and Cross, L. Adapting Criterion-referenced Measurement to Individualization of Instruction for Handicapped Children: Some Issues and a First Attempt. A paper presented at the 1972 Annual Convention of the American Educational Research Association, Chicago, 1972.

Stodgill, R. New goals for individualization. Educational Leadership, 1972, 29, 295-296.

Toste, D.T., and Hammon, H.P. The Management of Instruction. (ND)

Walberg, H.J. Models for optionizing and individualizing school learning. Interchange, 1971, 15-27.

Wolfson, B.J. Pupil and teacher roles in individualized instruction. In Talberg, E.G. and Frase, L.E. (Eds.). Individualized Instruction: A Book of Readings. Columbus: Charles Merrill, 1972.

Yorkelson, G.M. Technology: New goals for individualization. Educational Leadership, 1972, 29, 315-318. EJ048968.

CHAPTER V
DEFINING NEEDS AND SETTING GOALS

Introduction

Virtually every program in the sample reported a reliance on some overall specific sequence in delivery of services. Systematic approaches, i.e., models, or specific sequences of events, were reported to have several benefits for the planning and implementation of individualized services.

First, a systematic procedure was reported to have benefits for the child by providing a time and a system for weighing of alternatives that might fit the needs of that child. In addition, it was reported to help in bringing together the wide variety of services needed (e.g., medical, therapeutic, educational), to help in insuring input from all persons involved with the child, in defining areas of responsibility, and in tying personnel together philosophically. Standardized procedures were also reported to help in insuring a child's movement through the program by providing for systematic re-appraisal and review.

Following a systematic procedure was also reported to have benefits for the program by facilitating most efficient use of personnel, time, space and resources, and by affording a basis for program evaluation.

While the overall sequence of events in the approaches reported was similar, i.e., (1) pre-programming, (2) programming, and (3) post-programming events, the specific order of events within each general area could vary considerably, as could the range of time covered by the sequence in any given instance. The order of events within the three general areas seemed to be primarily a function of range of responsibility of the program, both in actually delivering services and in making decisions concerning services. That is, there was considerable variation in where, when, and who was actually involved in implementing and/or decision-making. For example, in some cases one program's services might include screening and identification of potentially eligible children, diagnosis and evaluation in medical, therapy, family and educational areas, provision of services in all of these areas, post program placement of children, and regular follow-up. For another program, screening and identification might be carried out by some outside agency, from which the child would be referred to a medical clinic for medical diagnosis and evaluation, and only then to the

particular program. Or, alternatively, all evaluation might occur in an outside location, with the program itself being responsible for implementation. In the same way, a program's actual areas of implementation might include medical services, therapy, family, and educational services, or any combination of these, with the remainder being carried out by outside resources. For one program, exit might end the program's responsibility, while in another the program may continue to offer some kinds of services. Because of these different alternatives, many variations in combinations are possible. Samples of sequences of services reported follow:

- Sample 1:
1. Referral (outside agency)
 2. Diagnosis and evaluation (medical and educational)
 3. Staffing recommendations
 4. Trial placement
 5. Staffing
 6. Placement
 7. Intervention (educational and therapeutic)
 8. Evaluation (educational)
 9. Exit

- Sample 2:
1. Referral
 2. Collection of files
 3. Educational evaluation
 4. Placement
 5. Educational intervention
 6. Exit
 7. Follow-up

- Sample 3:
1. Screening (social services)
 2. Home visit
 3. Referral to clinic
 4. Diagnosis and evaluation
 5. Staffing
 6. Referral to program
 7. Educational assessment
 8. Educational planning
 9. Intervention (educational)
 10. Evaluation (medical and educational)
 11. Exit
 12. Follow-up (medical)

- Sample 4:
1. Referral (within school)
 2. Admission to program
 3. Establish goals and objectives
 4. Assessments based on objectives
 5. Staffing
 6. Placement
 7. Intervention with outside therapy
 8. Evaluation based on objectives
 9. Exit

While in some programs this sequence of events took a matter of months or several years, in others it took place over a period of time from early childhood to vocational placement, or even from birth to death. This was generally a function of the setting of the program.

Rather than listing sequences, several programs reported using some systematic model in their delivery of services. In some cases the model reported was policy, a state plan, or legal guidelines. In addition, two specific planning models were named. These were (1) the systems model, and (2) PPBS (Program Planning and Budget System).

Thus, as suggested by the model presented in Chapter IV, systematic approaches were reported to have benefits related to both organization and delivery of individualized services. The remainder of this report will examine each of the primary segments of this sequence or, in terms of the model, the processes of defining needs, setting goals, planning, implementing, and evaluating.

Defining Needs: Identification

Identification procedures can fulfill several functions in individualization of services. The very process of identification contributes to the ability to match a child's needs with available services. For example, it can provide data for making decisions for placement, allowing placement by major handicap (if appropriate) or by other needs of the child in relation to program expertise. In addition, it can provide a focus for beginning to implement specialized services such as therapy, and for beginning to develop a concert of services, from either within the program or from outside, to meet the child's particular set of needs.

If identification procedures are tied to a central identification and referral agency, whether or not the actual identification is carried out by this agency or by the program itself, it was reported to become more possible to offer a continuum of coordinated services to meet the changing needs of the child.

Table 18 depicts the percentages of programs reporting some specific system of identification, whether carried out as part of the responsibility of the program or by reliance on some outside source. Some differences may be seen according to the handicapping condition of the population served.

While the majority of deaf-blind and multiply handicapped programs reported a specific system of identification, two of the three combination programs and a sizeable minority of the deaf-blind and multiply handicapped programs did not. Either many programs rely on outside sources for identification and referral of children, or the relationship of identification procedures to individualized services has not been established.

TABLE 18

USE OF IDENTIFICATION SYSTEM BY TYPE OF POPULATION SERVED

Handicap	System of Identification	
	Yes	No
Deaf-Blind (n=40)	65%	35%
Multiply Handicapped (n=33)	55%	45%
Both (n=3)	33%	67%

Several alternatives, of which referral was but one, were listed as ways of approaching identification. One major means of identification reported involved direct seeking of children. For example, some programs reported doing screening procedures, either in other schools or facilities (such as in churches or doctors' offices), or within their own schools. Another method reported was in the form of hospital visits to new mothers and a collection of prenatal and birth histories for identification of both obviously handicapped and at-risk infants. Other programs reported doing door-to-door searches as a way of finding children.

Use of outside information collected by some other source was reported as another major means of finding children. For example, available sources might include census data or registries maintained by such agencies or organizations as Commissions for the Blind or Regional Centers for Services to Deaf-Blind. Other types of outside organizations might not be directly involved with handicapped populations, but might have contact with other populations that are at high risk for handicapping conditions. For example, children were reported as being found through pediatricians, hospitals, welfare departments, health departments, or government offices, i.e., through any source which maintains demographic and/or census information on different populations.

Another type of approach might be termed the "public information" approach, and was reported as occurring in a variety of forms. For example, presentations by program personnel or parents might be made to personnel from other agencies, or to social, civic, or religious organizations. Such devices as form letters or brochures sent to agencies, doctors, and other schools were common, as were brochures left in offices frequently visited by a large number of people. Information was also reported to be disseminated through these other channels, as in sending out brochures to all families with children currently in school. One project funded to develop identification procedures reported disseminating information by sending it out in welfare check envelopes, through state representatives, and on the sides of milk cartons. Other forms of "public information" approaches reported included television and radio spots and regular short features in local newspapers. Dissemination of information, resulting in what was essentially a network of referrals, was the major method which programs reported for finding children in need of services.

Table 19 represents the percentage of referrals received from six different sources in relation to the setting of the program.

TABLE 19
MAJOR SOURCES OF REFERRALS BY SETTING OF PROGRAM

Setting	Major Source of Referrals (50-100%)						
	Community Agency	Physician	Screen- ing	Community Group	Parent Group	Indiv. Parent	Other
Agency (n=13)	38.5	23.1	-	-	-	7.7	15.4
Univ. (n=4)	25.0	-	-	-	-	25.0	-
Hosp. (n=2)	50.0	-	-	-	-	50.0	-
Home (n=1)	-	-	-	-	-	100.0	-
Reg. pub. sch. campus (n=27)	11.1	3.7	11.1	-	7.4	14.8	18.5
Sep. pub. sch. campus (n=13)	46.2	-	-	15.4	7.7	15.4	-
State sch. (n=20)	25.0	5.0	25.0	-	-	5.0	20.0
Private day (n=2)	50.0	-	-	-	-	-	-
Homebound (n=2)	100.0	-	-	-	-	-	-
Private res. (n=3)	-	33.3	-	-	-	-	-
Other (n=2)	-	-	-	-	-	-	-

Other referral sources listed were regional or state level personnel, medical schools, and program staff who, because of their roles, might come in contact with children outside of the program setting. In addition, at least one state was reported to require a branch of the state system (welfare) to identify and refer children. Another had an administrative unit whose sole function was to seek, serve, evaluate and plan for children.

As can be seen from the table, community agencies were a major source of referrals for programs located in all settings except for home and private residential settings. Individual parents accounted for a large percentage of referrals to all program settings except homebound and private day and residential programs. Community groups were the major source of referrals only for programs located on separate public school campuses, and parent groups made a substantial number of referrals only to public school (both regular and separate) programs. Screening accounted for a majority of referrals only to regular public school and state school programs, while physicians were responsible for a majority of referrals only to agencies, regular public school campuses, state schools, and private residential settings.

The few number of referrals from some sources, and the uneven use of others, seem to indicate that programs may not be utilizing present capabilities for identification of children. Inasmuch as a variety of ways of finding children contribute to meeting the individual needs of those children, all possibilities for referral sources should be found and/or developed.

A variety of problem areas were listed as hindering the use of referral services. Problems enumerated as contributing to an inadequacy in this area were (1) not enough sources, (2) not early enough, (3) not covering a large enough area, (4) non-comprehensive referral information, (5) untrained referral sources, and, especially, (6) uncoordinated sources. Inappropriate referrals were reported as resulting from a general non-awareness of the program's criteria for acceptance, resulting in the referral of many children not fitting the criteria.

Administrative problems listed were (1) limited communication with the referral source, and (2) the time lag between knowledge of the child's need for some kind of service and referral to the program. A major problem was the transmission of identification and referral information to the educational staff.

A final set of problems arose from the nature of the population. Specific problems named were (1) invalid examination procedures, and closely related, (2) the difficulty in testing unresponsive children, as many of these are.

Alternatives recommended for overcoming these problems placed heavy emphasis on the responsibility and role of the program. Whether or not the program itself could serve as the implementer in identification and referral procedures, it was urged that the program should at the least serve as the impetus for (1) education of referral sources, (2) establishment of a high-risk register, (3) involvement of its personnel in the identification procedure, (4) communication between levels in the process, and (5) establishment of a central referral committee, either public or private, whose responsibility it would be to find children and services for them. It was also advocated that the placement decisions be team decisions, including referral sources, educational personnel, and parents. In addition, it was suggested that identification and referral would become more standardized if either (1) definitions were standardized, or (2) programs could serve all multiply handicapped children.

These recommendations, in summary, seem to call for a program's use of all possible alternatives in educating and reaching all potential referral sources. Only in this way can each individual child be assured of receiving appropriate services, or in fact, any services.

Defining Needs: Diagnosis and Evaluation

Although individualization has been defined in a variety of ways, including our own (see Chapter IV), the common assumption of all of these definitions is the presence of some system of identifying needs. Or, put simply, to meet needs we must know what they are. The area of diagnosis and evaluation is thus integral to the process of individualizing services, and will be dealt with in some detail.

The processes involved in diagnosis and evaluation contribute to individualization by assuring input data for decision making. By describing the present state of the child within his environment, data is gained which can be used as a starting point for formulating hypotheses concerning ways to meet the child's needs, for making placement decisions, for formulating goals, for setting priorities, for anticipating workable techniques, and for drawing together a composite program from diverse areas of expertise.

Although "diagnosis and evaluation" is often conceptualized as a single entity, in reality the term seems to be a composite of two distinct (although overlapping) areas, having slightly different purposes. For this reason, it seems profitable at this point to define these two terms. While both terms imply appraisal and description of the child, diagnosis seems to connote appraisal for the purpose of labeling a configuration of needs, or summarizing a set of symptoms by use of a word usually associated with that set of symptoms, while evaluation connotes appraisal for the purpose of describing different characteristics of the child. For example, an appraisal for the purpose of diagnosis may result in a child's being labeled "blind," while appraisal for the purpose of evaluation may result in a description of visual capabilities and functioning. Thus, diagnosis provides a short-cut for describing a set of symptoms, while evaluation expands upon them by describing them in detail. Both processes may be useful in meeting a given set of needs. That is, a certain diagnosis may help a child gain access to a program. For example, insofar as the diagnostic label actually fits the child's configuration of symptoms, and insofar as this label communicates implications associated with symptoms, diagnosis can form input for planning. The primary uses of diagnostic results, however, seem to be for placement in programs with expertise available to deal with the symptoms implied by that label, for use by programs in obtaining funding, and as a shortcut way of communicating about children. Evaluation, on the other hand, expands description of a child beyond the point of easy communication, but is essential as a basis for the actual planning of individualized services.

Therefore, although diagnosis and evaluation are often thought of as one process, and although in fact at times both may result from the same appraisal, a separation of the two, in thought if not in fact, allows more

understanding of the usefulness of the diagnosis and evaluation process in educational programs.

The combinations of alternatives for variables involved in diagnosis and evaluation are many, varying according to why, when, and where they occur, as well as according to what procedures are carried out, who carries them out, and what happens to the results. Although it is difficult to separate alternatives into these areas, for the sake of clarity an attempt will be made to do so.

Physical Variable Alternatives

Location alternatives. Appraisal procedures vary in location from being completely separated from the program to being completely implemented within classrooms. Depending upon services and expertise available within and outside of the program, as well as upon philosophy of the program, appraisal may: (1) occur in surroundings which are totally removed from the educational program, for example in diagnostic clinics or at the regional level; (2) take place partly outside and partly within the program, usually (although not always) with diagnosis occurring outside and evaluation within; (3) occur totally within a program with different appraisals taking place at different levels of the program hierarchy, or (4) occur completely within one hierarchical level of the program, usually either within a level whose major function is appraisal, or within the implementation level.

The type of appraisal carried out within the program (and the nature of the appraiser) in part determine where the within-program appraisal occurs. One common procedure is to have individual testing rooms for different appraisers, with therapy appraisal occurring in individual therapy rooms, psychological appraisal taking place in the psychologist's office, and educational appraisal occurring in the classroom.

Another approach is for all of the individual appraisers to come to a central location, a classroom, for example. Some other alternatives listed as locations for appraisal were the home (or homelike environments within the program), play areas, cafeteria, dormitory, motor areas such as gym or pool, and community settings such as grocery stores.

Several problems were mentioned in connection with location of appraisers. Most of these were related to appraisals which took place outside of the program itself; it was felt that outside appraisers could not get complete information because they were unfamiliar with the child. Also mentioned was the problem of getting information from outside appraisers to implementers. Recommendations thus included using on-site and on-staff appraisers, or if this was not possible, establishing specific lines of communication between appraisers and implementers.

Time alternatives. Periods of time reported for the initial diagnosis and evaluation procedure varied from half an hour to several months, depending

upon the type of population and the setting. Table 20 shows the average amount of time spent in this procedure for deaf-blind, multiply handicapped, and combination programs.

TABLE 20
AVERAGE TIME SPENT IN DIAGNOSIS AND EVALUATION
BY TYPE OF POPULATION SERVED

Time	Population Served							
	Deaf-Blind		Multiply Handicapped		Both		Totals	
	n	%	n	%	n	%	n	%
< 1/2 day	6	16.7	11	37.9	-	-	17	25.0
≥ 1/2 - 1 day	6	16.7	8	27.6	2	66.7	16	23.5
> 1-3 days	9	25.0	4	13.8	-	-	13	19.1
> 3 days	15	41.7	6	20.7	1	33.3	22	32.4

Overall, the largest reported percentage (32%) of diagnosis and evaluation procedures was over 3 days. For deaf-blind programs, 42% of appraisals occurred over more than a 3 day period, while for multiply handicapped programs, a similar percentage (38%) of the appraisals were completed in less than half a day. Since the majority of deaf-blind programs are located in state schools, while most multiply handicapped programs are found on regular public school campuses, a comparison of the time spent in diagnosis and evaluation for the various settings is of interest. Such information is presented in Table 21.

Overall, roughly the same number of appraisals were reported to take less than a day and to take more than a day. However, there was considerable variation from setting to setting. As might be predicted from the preceding table, 73 percent (73%) of regular public school programs completed their appraisals in less than one day, while 63% of state school programs used more than one day for diagnosis and evaluation. The vast majority of programs located on separate public school campuses required more than one day to complete appraisals. Agency programs generally took more than one day for this process.

Time variations seem to be the result of (1) policy, (2) severity of handicap, (3) developmental levels of the child, and (4) role of the implementer in evaluation. In some cases, the diagnostic part of the process was reported as being quite short, while evaluation procedures took place over a longer period of time.

TABLE 21

AVERAGE TIME SPENT IN DIAGNOSIS AND EVALUATION,
BY SETTING OF PROGRAM

Setting	Time			
	1 day		1 day	
	n	%	n	%
Agency (n=11)	5	45.5	6	54.5
University (n=3)	2	66.7	1	33.3
Hospital (n=1)	1	100.0	-	-
Home (n=1)	-	-	1	100.0
Regular public school campus (n=26)	19	73.1	7	26.9
Separate public school campus (n=7)	1	14.3	6	85.7
State school (n=19)	7	36.9	12	63.1
Private day school (n=2)	1	50.0	1	50.0
Homebound (n=2)	1	50.0	1	50.0
Private residential school (n=2)	-	-	2	100.0
Other (n=2)	-	-	2	100.0
Totals	37	48.7	39	51.3

Evaluation carried out solely for educational purposes, i.e., excluding medical, therapy, and family evaluations, proved to be an interesting topic in terms of time. Table 22 presents the percentages of educational evaluations carried out at different points in time, as reported on the teacher questionnaire.

TABLE 22
TIME OF EDUCATIONAL EVALUATION BY SETTING
OF PROGRAM

Setting	Time			
	Formal diag. & eval.	Diag. tchr.	In class	Other
	%	%	%	%
Agency (n=16)	50.0	25.0	75.0	12.5
University (n=4)	75.0	-	75.0	-
Hospital (n=2)	50.0	-	50.0	-
Home (n=1)	100.0	-	100.0	-
Regular public school campus (n=29)	65.5	10.3	34.5	10.3
Separate public school campus (n=13)	30.8	30.8	53.8	15.4
State school (n=22)	31.8	22.7	40.9	9.1
Private day (n=2)	50.0	-	50.0	-
Homebound (n=3)	33.3	-	-	66.7
Private residential (n=2)	-	-	50.0	50.0
Other*(n=2)	100.0	50.0	50.0	50.0

*Other included assessment by therapists (speech, physical, occupational) when such personnel were considered part of the educational team.

In general, educational evaluation occurred most frequently during formal diagnosis and evaluation and after assignment to a teacher. Less than 13 percent of all programs reported that educational evaluation occurred during assignment to a diagnostic teacher. Only state schools, agencies and programs on separate public school campuses made major use of assigning children to diagnostic teachers for educational appraisal. All of the most frequently mentioned settings (agencies, state schools, and regular and separate public school campuses) utilized placement with a diagnostic teacher for educational evaluation. While regular public school programs conducted the majority of their educational evaluations during formal diagnosis and evaluation sessions (66%), separate public school programs conducted the majority of their educational evaluations after assignment to a teacher (54%). Similarly, 41 percent of the state schools reported that educational evaluation occurred after assignment to a teacher.

Problems mentioned in connection with time of (and for) appraisal were:

1. Limited time for teacher appraisal,
2. Too much time taken for appraisal, resulting in the necessity to begin implementing before it is finished,
3. Inappropriate time of appraisal, taking place before the child is secure in the environment.

Alternatives mentioned to overcome these problems were the scheduling of appraisal procedures after the child has spent some time in the program, as well as specifically scheduling time for teacher appraisal of individual children aside from the everyday instructional time.

Appraisal Personnel Alternatives

A wide variety of personnel were listed as alternatives for involvement in appraisal. The following is a list of the personnel named within several common areas of diagnosis and evaluation:

Medical Appraisers: (These individuals might be in private practice, in departments of health, in clinics, or in hospitals).

1. Medical personnel, including pediatricians, neurologists, nurses and orthopedic surgeons
2. Dentists
3. Therapists, physical and occupational

Vision Appraisers:

1. Medical personnel, including ophthalmologists, physicians, and nurses
2. Diagnosticians and psychometrists
3. Speech therapists
4. Volunteers
5. Teachers of visually impaired
6. Area services for the blind
7. Health department
8. Resource teachers
9. Paraprofessionals

Hearing Appraisers:

1. Medical personnel, including otologists, physicians, and nurses
2. Audiologists
3. Communication disorders specialists
4. Health department
5. Volunteers
6. Speech therapists
7. Paraprofessionals
8. Speech and hearing clinics
9. Teachers
10. Diagnosticians and psychometrists
11. Parents

Cognitive Appraisers:

1. Psychologists
2. Teachers, regular and diagnostic
3. Social workers
4. Learning specialists
5. Parents
6. Speech therapists
7. Occupational therapists
8. Physical therapists
9. Diagnosticians and psychometrists

Educational Appraisers:

1. Psychologists
2. Teachers, regular and diagnostic
3. Diagnosticians and psychometrists
4. Teaching teams
5. Psychologist-teacher-social worker teams
6. Learning specialists
7. Parents
8. Aides

Personal-Social Appraisers:

1. Social workers and family counselors
2. Psychologists
3. Teachers, both regular and diagnostic
4. Parents
5. Therapists
6. Diagnosticians and psychometrists
7. Growth and development specialists
8. Psychiatrists

Other personnel mentioned, but not specific to any of the above areas, were dormitory personnel, recreational therapists, nutritionists, and vocational rehabilitation counselors.

While certainly not exhaustive in either areas covered or types of individuals involved, this list does give some indication of the amount of variation occurring in terms of who was reported to be involved in appraisal, variation which occurs both in terms of the individuals' training and in terms of closeness to the child.

In general, there seemed to be less variation in frequency of who was involved in appraisal of the first three areas above, with heavy emphasis on medical personnel and other specialists. These also corresponded to those appraisals which tended to occur outside of the program. Appraisal of functional vision and hearing was a much grayer area, tending toward a wider variety of involved individuals, and toward a mix of outside and inside-program individuals. The final three areas tended to be carried out by persons within the program itself.

The team appraisal. Because of the number and severity of handicaps which the multiply handicapped have, because the resulting combinations make appraisal difficult, and because single appraisals are rarely meaningful without a context within which to interpret them, team appraisals have become a common way of approaching the multiply handicapped child.

Many of the programs returning questionnaires reported the use of a team approach to appraisal. The word "team", however, varied considerably in meaning, covering a number of patterns for combinations of individual appraisers. The major sources of variation seemed to be which areas of the child's life were covered, the number of areas covered, types of personnel comprising the team, amount of involvement, and structured interaction between them. The team could thus vary in size and in areas covered,

with two or more separate persons responsible for appraisal of two or more individual areas. Almost any combination of two or more of the persons listed in the preceding section might constitute a team. Amount of involvement of any one of these might vary from agreement with a decision, to written or verbal input, to direct child appraisal.

One semantic distinction which seems to help in differentiating between kinds of teams and the within-team interaction is the distinction between the "multi-disciplinary" team and the "interdisciplinary" team. The multi-disciplinary team includes representatives of a number of disciplines, but does not include interaction between these persons. An interdisciplinary team may include the same disciplines, but also includes some structure for assuring interaction between disciplines.

There were thus many possible sources of variation covered by the word "team". A useful way of thinking about the different kinds of resulting teams is in terms of diagrams illustrating roles and interactions of appraisers. The following figures illustrate some of these possibilities:

1.  One team, consisting of personnel at the diagnostic level or of personnel at the evaluation level. For example, a diagnostic level team might include a doctor and a psychologist, while an educational level team might include a physical therapist, a teacher, and a houseparent.
2.  Two teams, one at each level.
3.  One team, including different levels of personnel. For example, it might include a neurologist, an administrator, a social worker, a teacher, and an aide.
4.  Appraisal by a one-level team, with input from the other.
5.  Any of the above with outside consultation, or core team with access to specialists as needed.

Table 23 indicates the relative responsibility of various personnel for educational evaluation, as reported by teachers.

TABLE 23
RESPONSIBILITY FOR EDUCATIONAL EVALUATION BY SETTING
OF PROGRAM

	Tchr. %	Personnel Responsible			
		Staff diag. %	Outside diag. %	Multidisc. team %	Other %
Agency (n=16)	56.3	31.3	-	6.3	43.8
University (n=4)	75.0	25.0	-	25.0	25.0
Hospital (n=2)	50.0	-	-	-	50.0
Home (n=1)	100.0	-	-	-	-
Regular public sch. campus (n=29)	58.6	31.0	3.4	10.3	34.5
Separate public sch. campus (n=13)	46.2	15.4	-	-	53.8
State sch. (n=22)	72.7	9.1	-	4.5	31.8
Private sch. (n=2)	50.0	-	-	-	50.0
Homebound (n=3)	33.3	-	33.3	-	66.7
Private residential (n=2)	100.0	-	-	-	50.0
Other (n=2)	50.0	-	-	-	50.0

Row totals exceed 100, as respondents often indicated more than one choice.

The teacher was reported to bear the major responsibility for educational assessment in every setting. One university program had a diagnostician on staff, and one university program employed a multidisciplinary team. Thirty-one per cent (31%) of both agencies and regular public school programs placed the responsibility for educational evaluations on staff diagnosticians. Forty-one percent (41%) of programs in all settings employed personnel for educational evaluation other than those listed in the table. These included therapists, supervising teachers, psychologists, home trainers, and special education directors.

There are thus many possible sources of variation, and a resulting large number of possibilities, for the kinds of individuals involved in the appraisal process. Many kinds of personnel problems were reported as interfering with appraisal procedures. First, these included problems having to do with types of appraisers, i.e., (1) finding an appropriate team and organizing it for services, (2) the appraisers' lack of experience with handicapped children, (3) the lack of certain kinds of personnel within the program, e.g., a psychologist, and (4) use of appraisers who are unfamiliar with the children. Major problems in usefulness of results were caused by (1) the non-involvement of implementers in the appraisal process, (2) isolation of appraisers from each other, (3) the withholding of information between agencies and personnel, (4) the non-communication of

results to educational personnel, and (5) the writing of reports in technical language.

Recommendations for alternative ways of using appraisal personnel to overcome these problems may be summed up in the words involvement, flexibility, and advocacy. The use of an interdisciplinary team, as opposed to multidisciplinary or no team, and including all persons who are involved with the child on an intensive basis, was the most commonly made recommendation. Another alternative was to have a small core team, preferably consisting of a teacher and a social worker, to act as advocates in obtaining needed appraisals and in translating results into a usable form. This approach has the advantage of flexible composition depending upon the needs of the child.

Alternatives for Content of Appraisal

What is included in appraisal of any one child is determined by law (which usually mandates medical and psychological appraisals), by available appraisers, by available equipment, by responsiveness and testability of the child, by request of a parent, and by the need for information to act as input for decisions in referral, placement, and planning of services. Areas covered are also related to most of the variables previously discussed, such as variations in when and where appraisal occurs, and what information is already available in the areas of medical, educational, family and social histories.

Table 24 shows the percentage of programs requiring appraisal in different areas according to whether they serve deaf-blind or multiply handicapped children.

Other areas of appraisal which were mentioned as being sometimes required were therapy, neurological, genetic, dental, social service (home), psychological, psychiatric, behavioral, developmental, and perceptual.

Overall, appraisal in every area listed except hearing and vision, and functional hearing and vision, was required by at least 80% of the programs. Although 93 percent of deaf-blind programs required vision and hearing screening, only 64% required appraisal of functional hearing and only 68% required an evaluation of functional vision. It is interesting to note that these percentages were the lowest of any appraised area for the deaf-blind, with the exception of cognitive appraisal. Appraisal of functional hearing and vision was required in only 42 and 50 percent of the multiply handicapped programs, respectively, although vision and hearing screening were required by 58% of such programs. The three combination programs required appraisal

TABLE 24

AREAS IN WHICH APPRAISAL IS REQUIRED, BY TYPES OF POPULATION SERVED,
AS REPORTED ON ADMINISTRATIVE QUESTIONNAIRE

Required Appraisals	Population Served		
	Deaf-blind(n=42)	Multiply handicapped(n=38)	Both(n=3)
	%	%	%
Medical	92.9	84.2	100.0
Audiological	92.9	57.9	66.7
Visual	92.9	57.9	66.7
Audiological (functional)	64.3	42.1	100.0
Visual (functional)	66.7	50.0	100.0
Personal-social-emotional	73.8	81.6	100.0
Cognitive	64.3	78.9	100.0
Achievement	76.2	86.8	100.0
Communication	76.2	84.2	100.0
Motor	76.2	78.9	100.0
Self-help or daily living	85.7	81.6	100.0
Mobility	76.2	71.1	100.0
Other	21.4	15.8	33.3

in every area listed except hearing and vision, for which only 2 out of 3 programs required appraisal. Proportionately more deaf-blind than multiply handicapped programs required appraisal in the medical, audiological, self-help and daily living, visual, and mobility areas. Areas in which appraisal was more often required by multiply handicapped than deaf-blind programs included personal-social, cognitive, achievement, communication, and motor abilities.

A variety of appraisal tools were reported. Appendix D lists these tools, along with addresses where available. It should be remembered that the list represents only those items mentioned by participant programs, and is not necessarily comprehensive. In addition, these tools vary greatly as to their levels of standardization, formalization and extent of use. Some are published, while others are program-developed. The populations for which these tools were designed are not necessarily either deaf-blind or multiply handicapped. Therefore, the list should be regarded as a source of alternatives which are currently being used in the field, and as a source of resources for exploration.

Problems in the appraisal process arise in the areas of what and how, as well as in the areas discussed previously (i.e., time, location and personnel). "What" problems reported were generally related to the applicability of appraisal tools and/or processes to the population, and to the usefulness of the information derived from the process. "How" problems were concerned with the conditions under which the appraisal occurred as these affected the content of the appraisal.

Many programs reported the problems of inappropriate instruments, lack of validity of instruments, lack of lower level tools, global rather than specific exploration of needs, and lack of relationship between appraisal and educational goals. In a few cases, teachers reported not receiving results. Another problem reported was the inability to use psychological appraisals as a basis for planning. Several programs mentioned that the artificiality of appraisal situations limited the ability to generalize and use results. A problem specifically mentioned by teachers in using developmental scales was the gap between levels and the resulting need for teachers to be able to do task analysis in order to fill these gaps.

Alternatives for meeting appraisal needs were varied. One often repeated suggestion to overcome the problem of validity was to forget standardized tests as a basis for planning, and to use alternative methods such as developmental checklists, videotapes, and observation. A related suggestion was to standardize situations for observation, for example, by describing standard areas to observe in watching a videotape. Alternatives mentioned for overcoming the problems of validity which result from appraisal in artificial environments included (1) on-site appraisal, i.e., appraisal of a skill or level of development in an environment in which it is meaningful, (2) appraisal in environments which are familiar to the child, (3) use of the initial diagnosis and evaluation as a beginning of data collection on which to base beginning decisions, (4) trial placement as part of the appraisal process, and (5) building in cross-checks on information by structuring appraisal of the same areas from different perspectives. Another kind of suggestion was to make appraisal relevant to implementers by (1) including them as appraisers, (2) designing appraisal to answer specific questions posed by these personnel, (3) basing appraisal on goals or on curriculum, and (4) structuring an interdisciplinary discussion of implications of appraisal. A final suggestion concerned appraising aspects of the child's environment and of the child's interaction with the environment, rather than the child in isolation. For example, an alternative to observation of child behavior is observation of teacher behavior toward the child, or of the interaction between them.

Alternatives for Reporting Results

Most commonly, the content of the report was (as would be expected) results of the appraisals, and might include results from one or any number of appraisers, covering both diagnosis and evaluation or confined to either one or the other. Although often the appraisal results constituted the

entire content of the report, it often also included recommendations for placement, and more rarely interpretations, implications, and goals for programming. Sometimes it was reported to include recommendations for activities. The section of the report covering educational appraisal, for example, might include clinical manifestations and diagnosis, academic levels, prognosis, learning characteristics such as learning rate, learning modality and attention span, recommendations, and suggested activities. Several general formats were reported for the appraisal report. First, it was reported to be a collection of separate appraisal forms or instruments. For example, it might include a developmental checklist, diagnostic teaching activity charts, a neurology report, and an ophthalmological report. Second, it could be summaries of separate evaluations, i.e., not the instrument recording forms themselves, but summaries of this information in some other form, usually either written or computerized. A variation of this was the summary report, summarizing the separate reports in some standard way, for example on a computer form. Third, the report could include any of the above plus a staffing report, which might include only those who did the appraisals, or could include other persons as well (e.g., a referring teacher). Finally, the report might include only the staffing report, with appraisal information used as input, rather than as part of the report.

There was as much variation in who was involved in writing appraisal reports as there was in who did the appraisal. Often, although not always, the personnel were the same, and the patterns for combinations of involved persons were similar to those presented for combinations of appraisers.

Table 25 shows percentages of occurrence for some of the personnel involved in these combinations.

The first three categories in the table indicate the writing of the report by a single person, i.e., either an administrator, an appraiser, or a teacher, whether or not other individuals were involved in doing appraisals. The teacher team category indicates that the report was completely written by a team of teachers, while multi-disciplinary team includes reports which were basically combinations of different separate reports. Interdisciplinary team indicates that a group report was formulated from the appraisal results.

The largest percentage of appraisal reports in deaf-blind programs (38%) were written by individual teachers, while the largest percentage (29%) of those in programs for the multiply handicapped were written by individual appraisers. A smaller, though substantial, percentage (21%) of the appraisal reports used in multiply handicapped programs were written by individual teachers. Nearly twice as many reports were written by multi-disciplinary teams in multiply handicapped programs as in deaf-blind programs, while more than 4 times as many reports were written by interdisciplinary teams in deaf-blind than in multiply handicapped programs.

TABLE 25

PERSONNEL INVOLVED IN WRITING THE APPRAISAL REPORT,
BY TYPE OF POPULATION SERVED

Personnel	Population Served		
	Deaf blind (n=37)	Multiply handicapped (n=38)	Both (n=4)
	$\bar{x}$	$\bar{x}$	$\bar{x}$
Administrator	2.7	7.1	-
Appraiser	5.4	28.6	-
Teacher	37.8	21.4	25.0
Teacher team	5.4	7.1	-
Multi-disciplinary team	8.1	14.3	25.0
Interdisciplinary team	16.2	3.6	25.0

(Since an interdisciplinary team report is the synthesis of many separate evaluations, the chances of an accurate and comprehensive picture of the total child with this type of report is much more likely than with individual reports or with those written by a multidisciplinary team). Teacher teams or administrators wrote few appraisal reports. Very few (5%) deaf-blind programs utilized reports written by a single appraiser.

Alternatives: Who Gets Results?

The number of recipients of results ranged from one, which was usually an administrative file, to anyone implementing programs with the child, to anyone whom the parents requested. In general, programs reported the dissemination of results to one or more individuals or groups either within the program, outside of the program but still in the governing hierarchy of the program, or offering services other than those offered within the program.

Within the program, alternatives for recipients included files and/or persons in one or any number of the following positions: administrative, social service, appraisal, cottage or dormitory, teaching, therapy, and/or medical. Also included might be decision-making committees. Outside of the program, but within the governing hierarchy, recipients included files or individuals at the district, county, state, or regional office, and in the departments of education, health or welfare, depending upon the funding and/or legal superstrata of the program. Some programs also reported disseminating results to persons or agencies delivering services other than those offered within the program. These might include social,

therapy, or medical services offered outside, referral sources, other kinds of contracted services, or possible future placement sources. Parents were consistently listed as recipients of appraisal results, either in their capacity as program implementers, as defined by legal guidelines, or both.

Alternatives for Reassessment and Documentation

Many program respondents commented upon the importance of reassessment and documentation and, in fact, many expressed a preference for continuous daily measurement over the initial diagnosis and evaluation as a basis for planning.

Again, there seems to be a difference in use of terms; while the two can not really be separated, in general documentation seemed to refer to the actual process of record keeping, whether it be on a daily or an a yearly basis, while reassessment referred to a periodic review of data or the periodic gathering of new data. Reassessment thus in the long run becomes part of documentation; in the short run, both become data for change.

Both processes together were reported to contribute to individualization of services by forming a regular basis for revision of programming. By keeping records of amount and rates of progress, and by comparing the child only to himself, information could be obtained for the altering of the total program, or of any portion of it. This data in turn might be used as one basis for accountability. While some classroom reassessment and documentation procedures seem to take place on an ongoing basis, others vary considerably in time of occurrence. Because funding is often tied to evaluation, the following analysis will be done in the light of funding sources.

Table 26 illustrates intervals between reassessment, as reported by teachers, while Table 27 shows intervals between program level reassessments as reported by both teachers and administrators, by source of funding.

Table 26

CLASSROOM LEVEL REASSESSMENT INTERVALS
BY MAJOR SOURCE OF FUNDING

	Source of Funding				
	Public	Federal	Private	Tuitions	Other
	(n=32)	(n=39)	(n=4)	(n=1)	(n=6)
	%	%	%	%	%
Regular daily	21.9	15.4	-	-	33.3
Regular weekly	12.5	2.6	-	-	-
Regular monthly	-	17.9	25.0	-	16.7
4 times a year	18.7	15.4	-	-	33.3
2 times a year	15.6	28.2	25.0	-	16.7
Once a year	12.5	5.1	-	-	-
None	-	2.6	-	-	-

TABLE 27

TIME INTERVALS OF PROGRAM LEVEL REASSESSMENT
BY MAJOR SOURCE OF FUNDING

Time Interval	Funding									
	Public		Federal		Private		Tuitions		Other	
	A	T	A	T	A	T	A	T	A	T
	(n=29)	(n=24)	(n=41)	(n=31)	(n=5)	(n=3)	(n=1)	(n=1)	(n=7)	(n=5)
	%	%	%	%	%	%	%	%	%	%
Daily	24.1	11.1	19.5	12.9	20.0	-	-	-	-	-
Weekly	10.3	-	7.3	-	-	33.3	-	-	28.6	-
Monthly	3.4	-	17.1	16.1	40.0	-	-	-	14.3	-
4 times a year	20.7	11.1	19.5	12.9	-	-	-	-	28.6	60.0
2 times a year	24.1	11.1	36.6	22.6	80.0	-	100.0	100.0	14.3	20.0
Once a year	44.8	33.3	46.3	9.7	60.0	33.3	-	-	57.1	-
None*	-	-	-	3.2	-	-	-	-	-	-
Other	27.6	33.3	17.1	22.6	-	33.3	-	-	14.3	20.0

A= Administrator; T= Teacher

* "None" was not a choice on the administrative questionnaire.

In addition to the intervals reported in the table, others were reported which fell between these intervals. Still others were reported beyond the time limit listed, for example, every three years. Special needs were also listed as occasions for reassessment, e.g., when the child leaves the program, or when objectives have been reached.

Overall, there was disagreement between teachers and administrators as to when program re-evaluation took place. According to the administrators of the federally funded programs, the majority of reassessment took place once a year. However, teachers reported that it occurred twice a year or more often. (Perhaps there is lack of agreement between teachers and administrators as to what constitutes the "program", which is a rather general term). In regard to public school programs, the majority of both teachers and administrators reported annual re-evaluation. It is interesting to note that 24% of the administrators of public school programs reported daily reassessment, while only 11% of the teachers made this same statement. Administrators of the private programs stated that most reassessment occurred once or twice a year; teachers were evenly divided among once a year, weekly, and "other". Overall, the majority of administrators reported that program level reassessment took place once or twice a year; teachers also most frequently mentioned these two intervals, in addition to four times a year.

Areas covered in daily documentation seemed to be those which were built into the children's programs, while those covered in reassessment were generally the same as those in the initial diagnosis and evaluation. Depending upon the primary orientation of the program, e.g., physical or educational, the regular reassessment was sometimes reported as limited to that area, while other areas were done "as needed."

Reassessment data can generally be divided into two kinds, "hard" data, or that which is in some concrete form, and "soft" data, or that which is used in decision-making but which is on a verbal level. Examples of hard data that were listed by programs were anecdotal records, daily charting, graphs, observations, progress checks, checklists, videotape protocols, computerized tracking, logs, probe data, daily lesson plans, standardized tests, questionnaires to parents and outside agencies, and periodic regular re-testing. Examples of soft data consisted of review of goals and objectives, staffings, telephone calls to parents and outside agencies, and parent conferences.

It should be noted that these forms of reassessment and documentation are not necessarily limited to the instructional sequence alone, but may be equally useful in areas such as therapy or parent skill development.

Problems encountered in using reassessment and documentation procedures in planning individualized programs were in many cases identical to those encountered in diagnosis and evaluation (e.g., validity of procedures), while having the advantage of being on-going, on-site and directly related to programming. There were, however, additional problems. One major problem, as reported by participating programs, was time to take and record data within the same time frame as instruction and other implementation procedures.

Some procedures, such as writing anecdotal records, were reported to take a great deal of time. Time problems were also reported in connection with combining, interpreting and using data, and as they affected the ability of different personnel to compare different sets of data on the same child.

Another source of problems reported was related specifically to abilities of personnel to keep data, and to communication between personnel. For example, one problem reported was interpersonal disagreement on documentation techniques, while another was misunderstanding of the purposes of documentation. Inconsistency between personnel because of inability to carry out procedures correctly was another problem listed.

The form of the reassessment procedure also presented some problems. One problem was the lack of preciseness, while another was lack of tools in certain areas; both of these were reported as resulting in incomplete information. The usefulness of reassessment was reported to be affected by inability to interpret and use data, and by limited access to data other than what each individual implementer accumulates.

Some alternatives recommended for overcoming these problems were to pinpoint small steps, so that progress would show up quickly, and to keep the procedure very simple and systematic in order for it to be incorporated into daily implementation. Another possibility suggested was to limit daily data-taking to priority areas, which could change over time. Solutions suggested to meet the problems of inconsistency, inaccurate and unuseful data were (1) training for all personnel, one systematic method, and (2) time for staffing in which to compare and use data.

Given the alternatives listed in each of the areas above, a wide variety of combinations are possible in the process of tailoring the appraisal process to meet individual needs of children, families, and programs. This variety may create problems, however, unless decisions for ways to combine alternatives are based on specific questions which the appraisals are meant to answer, combined with consideration of program capabilities. Because the appraisal process may serve different functions at different levels of the program hierarchy (for purposes as diverse as generating funding and planning instructional sequences), as well as at different stages of the programming process, these purposes, along with the information needed to meet them and ways of obtaining it, must be clearly and specifically stated. Alternatives may then be combined in the most efficient and effective way to meet these needs.

Based upon the questionnaires from participating programs, the following recommendations can be made for fitting diagnosis and evaluation procedures to individual needs:

I. Purposes

- A. State clearly the purposes of the procedure, and which results will be used for which types of decisions.
- B. Disseminate this information to all persons who (1) are involved in the appraisal, or (2) involved in using the results.

II. Alternatives

- A. Examine the alternatives for appraisal which exist in the program, and create new ones if necessary.
- B. Establish a procedure for systematically considering these alternatives in each case.

III. Personnel

- A. Create systematic procedures for combining appraisers into interdisciplinary teams.
- B. Include on the team as appraisers the same persons (or at least disciplines) who will be key implementers (including parents).
- C. To insure that the procedure will be tailored to the situation, include a person whose function will be to advocate for the child and family.

IV. Procedures

- A. Base appraisals upon needs of implementers.
- B. Design the system so that on-going appraisal becomes part of diagnosis and evaluation.
- C. Design the system so that appraisals occur as much as possible in the child's everyday environment.
- D. Be sure that results are translated into implications for implementation.
- E. Disseminate results to all implementers.
- F. Build in a feedback system for making procedural changes.

Setting Goals

Goal setting, like appraisal, is central to individualization of services, and in fact is directly tied to appraisal of individual needs. Processes involved in setting goals can contribute to individualization by forcing individual consideration of each child, while the goals themselves, when set, become the basis for planning, for grouping, for choosing materials and equipment, for evaluation of progress, for accountability, and for criteria on which to base the child's exit from a program. They also become an important basis for communication between personnel working with the child. Because many times goal areas are similar for similar populations, areas for appraisal can be directly related to areas of expected need. Goals in addition can contribute to individualized implementation by providing an orderly sequence for implementers to follow, by promoting consistent expectations between implementers, and by forcing implementers to consider each aspect of the individual. In general, then, goals act as guides for implementation.

Goals often exist on several levels within an educational program, and include goals for the program itself, total service goals for the child (including medical, therapy, and parent goals), and instructional goals. Because of these different levels, both program goals and child goals may come from a number of sources, including BEH guidelines, state, county, or district

guidelines, and from other projects which are being replicated. Alternatively, goals may be formulated at the school, program, or classroom level, or from any combination of these.

Program goals may or may not be official and/or in writing. Table 28 shows the percentages of programs, by category of handicap, having specifically stated program goals, and the explicitness of their formulation.

TABLE 28
EXPLICITNESS OF GOAL DEFINITION, BY TYPE OF POPULATION SERVED,
AS REPORTED ON ADMINISTRATIVE QUESTIONNAIRE

Explicitness	Population		
	Deaf- blind	Multiply handicapped	Both
	(n=42)	(n=38)	(n=3)
	%	%	%
Official and in writing	52.4	68.4	66.7
Official, not in writing	9.5	10.5	-
In writing, not official	23.8	15.8	-
Neither	14.3	5.3	33.3
Don't know	-	-	-

More than half of the respondents from all three types of programs reported official, written goals. One of the three combination programs (33%) reported goals which were neither official nor in writing, while 24 percent (24%) of the deaf-blind programs reported written, although unofficial, goals.

Program goals reported covered a number of areas, including most aspects of any given program's responsibilities and areas of service. Areas in which goals were specified were placement, welfare, therapies, identification, diagnosis and evaluation, medical services, social services, personnel, and parents. Some of the more specific program goals named were (1) upgrading of services, (2) early identification and intervention, (3) family-oriented programming, (4) use of community resources, (5) alternatives available for setting of services, (6) safe, homelike atmosphere, (7) approximation of "normality", (8) development of a registry, (9) providing training and demonstration to other programs, (10) developing community awareness, (11) developing a program model, (12) facilitating the development of other programs, (13) de-institutionalization, and (14) research.

It is obvious from this list that there are many areas into which a program may venture in developing more appropriate and more individualized services

for children, many of which do not necessarily involve direct services to children. In general, program goals reported focused on provision of a broad range of quality services.

Goals set for children, as reported by participating programs, fell into two distinct categories, i.e., total service goals and instructional goals. This fact again illustrates the importance of extending the concept of individualization to total services, as discussed in Chapter IV.

Total service goals for children were reported in the areas of health, medical treatment, recreation, developmental areas, academic areas, vocational development, placement, home or dormitory living, therapy, family living, and parent involvement. (In addition to involvement in the child's service plan, there may also be an individual plan for the parent; this will be discussed in a later chapter.)

Table 29 shows percentages of programs which set goals in each of these more common service areas, by major source of funding.

TABLE 29
AREAS OF PROGRAM GOALS BY MAJOR SOURCE OF FUNDING

	Funding				
	Public (n=25)	Federal (n=36)	Private (n=5)	Tuitions (n=1)	Other (n=7)
	%	%	%	%	%
Academic	72.0	41.7	60.0	100.0	28.6
Medical	4.0	5.6	20.0	-	14.3
Affective	84.0	58.3	60.0	100.0	85.7
Family	8.0	13.9	-	-	-
Developmental	68.0	86.1	80.0	-	71.4

(Totals may exceed 100 percent, as respondents often reported goals in more than one area).

Very small percentages of the publicly supported and federally funded programs (8 percent and 14 percent respectively) reported setting family goals. No program funded privately or through tuitions reported setting goals for the family. At least 68% of all types of programs set developmental goals, and at least 54% of all programs set goals in the affective domain. Medical goals were infrequently reported by publicly and federally supported programs, while one privately funded and one "other" program reportedly set goals in this area. Far more publicly funded programs (72%) set instructional goals than did federally funded programs (42%). Undoubtedly, this

can partially be attributed to the fact that the majority of federally funded programs were for the deaf-blind, while the majority of publicly funded programs served the multiply handicapped. As the graphs in Chapter III indicate, the deaf-blind students, in general, were functioning at lower developmental levels than the multiply handicapped. Therefore, large numbers of them may not be ready for academic or strictly instructional goals. The largest percentage of goals (84%) in publicly funded programs were set in the affective area, while the largest percentages of goals in federally and privately funded programs (86 and 80% respectively) were set in the developmental domain. Again, the majority of federally funded programs serve the deaf-blind, for whom one might expect goals to be primarily developmental.

Total service goals, if set, were often based directly on results in the different areas of appraisal, and in fact were often reported to be set within the individual reports of the appraisers or as a result of the staffing following the appraisals.

At the central instructional level (see model in Chapter IV), goals were reported to be set in areas which were usually the responsibility of a teacher; if the team approach was used, the instructional level might include various specialists, and consequently goals would be set at this level in these areas, rather than at the adjacent services level as in situations where teams were not used.

Alternatives for areas in which instructional goals were set included many which might be found in educational programs for non-handicapped children, as well as a wide variety of others.

Table 30 shows percentages of programs setting instructional level goals in each of the areas named according to upper age limit of the population, as reported by teachers.

Some of the areas listed in this table include more specific categories. Physical includes the motor areas, while academic includes skills involved in readiness for academic work. Such categories as self-control, awareness of self and environment, such basic skills as attending and imitating, and elimination of such interfering behaviors as self-stimulation and tactile defensiveness are included in the social-emotional area.

There is a smooth and consistent trend away from setting physical goals as the children become older. Thus, 100% (n=2) of the programs whose upper limit was 5 years set physical goals, but only 41% of programs serving students up to 21 years set goals in this area. Sensory goals were not set in any programs whose upper age limit was 5 or 9 years, and were only set in one program (7%) whose upper age limit was 15 years. (These figures do include, of course, programs for the deaf-blind, and the absence of sensory goals for younger children is rather surprising). In general, smaller percentages of goals were set in every area except vocational for programs enrolling the oldest students. Academic goals, as might be expected, were most frequently set for students in programs with upper age limits of 12, 15, and 21 years. Perceptual goals were most frequently set for programs whose upper age limit was 12 years.

TABLE 30
AREAS OF INSTRUCTIONAL GOAL SETTING,
BY UPPER AGE LIMIT OF PROGRAM

Instructional Areas	Upper Age Limit				
	5 years	9 years	12 years	15 years	21 years
	(n=2)	(n=10)	(n=21)	(n=14)	(n=37)
	%	%	%	%	%
Physical	100.0	70.0	61.9	42.9	40.5
Sensory	-	-	23.8	7.1	16.2
Social-					
emotional	100.0	70.0	57.1	78.6	37.8
Self-help	100.0	70.0	71.4	78.6	59.5
Academic	-	10.0	23.8	28.6	24.3
Cognitive	100.0	40.0	23.8	28.6	24.3
Communica-					
tion	100.0	70.0	71.4	50.0	59.5
Perceptual	-	10.0	33.3	7.1	8.1
Vocational	-	-	4.8	-	13.5
Other	-	50.0	33.3	35.7	45.9

Other areas named included recreation, daily living (which overlaps to a large extent with self-help), pre-vocational, behavior management, mobility and motor.

It could be expected that a variety of levels of personnel would be involved in setting goals for total services; it could also be expected that instructional program goals would be set by personnel at the instructional level and by those persons with direct contact with the instructional program. Table 31 gives percentages of personnel involved in setting instructional goals according to the upper age limit of the program, as reported on the teacher questionnaire.

Teachers were most frequently involved in setting instructional goals, with at least 84% of all programs reporting teacher involvement. Counselors were not involved at all in the process of goal setting in programs with upper age limits up to 15 years. Of the programs serving students up to 21 years of age, only 5% reported that counselors set instructional goals. The participation of aides ranged from none (0%) (in programs with an upper age limit of 5 years) to 50% reported by programs serving children up to age 15. (Since many educational programs, especially those using the team approach, attempt not to distinguish aides from other implementers such as teachers or therapists, this percentage may not be a real indicator of what exists). Parents were involved in setting instructional goals in both programs (100%) whose upper age limit was 5 years, yet only 10% of programs

TABLE 31
PERSONNEL INVOLVED IN SETTING INSTRUCTIONAL GOALS,
BY UPPER AGE LIMIT OF PROGRAM

Personnel	Upper Age Limit				
	5	9	12	15	21
	(n=2)	(n=10)	(n=21)	(n=14)	(n=37)
	%	%	%	%	%
Teacher	100.0	90.0	95.2	85.7	83.8
Aide	-	10.0	33.3	50.0	13.5
Parents	100.0	10.0	23.8	21.4	13.5
Counselor	-	-	-	-	5.4
Educational consultant	-	-	4.8	14.3	10.8
Diagnostic personnel	-	-	4.8	14.3	8.1
Therapist (speech, physical, occupational)	-	30.0	14.3	28.6	18.9

(Totals exceed 100 percent, as most programs involve more than one type of personnel in setting instructional goals.)

with an age limit of 9 years involved parents in setting instructional goals. Less than 25 percent of the programs with upper age limits of 12, 15, and 21 years involved parents in this process. (Re-examination of the model presented in Chapter IV illustrates the importance of parent involvement in every program component, not the least of which is goal setting). Educational consultants were reportedly not involved in setting goals for programs serving the youngest children (upper age limits of 5 and 9 years), and they were only involved in 5 to 14 percent of the programs serving older students. The trend was almost identical for the involvement of diagnostic personnel. Therapists were involved in setting instructional goals in 14 to 30 percent of all programs, except those with an upper age limit of 5 years (where therapists were reportedly not involved at all).

In general, the greater the upper age limit of the program, the greater the number of personnel involved. Programs with an upper age limit of 5 years reportedly involve just teachers and parents, while programs enrolling students up to age 21 years reportedly involve all personnel listed. It would seem to be advantageous to involve as many types of relevant personnel as possible in order to maximize comprehensive goal setting.

Other persons named as having direct input into the process of setting goals were the child, administrators, child advocates, social workers, nurses, vocational counselors, psychologists, and home living personnel. The referral agency was included as another possible alternative.

Fifty percent (50%) of the programs reported using a specific guide for instructional goal setting. In general, the guides named were assessment tools, curriculums, and developmental sequences. In addition, programs reported using sources such as normal education, child development literature, and state guidelines. Another type of guide was the consideration of expectations in future placements, including work and school, and of community expectations. Parents' goals for children were listed as an important source for instructional goals. Another source was the analysis of behavior into small segments; this analysis might be based on the child and/or on the task. A final source for goals was the use of resource people, both inside and outside of the program.

Information considered to be essential for goal setting, in addition to sources of goals listed above, fell generally into the categories of appraisal information and historical information, and concerned both the child and the environment. Historical information considered to be essential was such descriptive information as age and sex; information on previous schooling such as achievement levels and procedures found to be effective; family history, and medical information such as etiology of handicap and restrictions on activities. Appraisal information considered to be essential included developmental levels in all areas, sensory development, behavioral descriptions, mental age and IQ, functional sensory information, learning rates and modalities, reinforcers, functioning in the present environment, and therapy needs. In addition, appraisal of certain aspects of the environment was considered to be essential to goal setting. These included appraisal of the home and/or of the living environment in terms of attitudes, interactions and expectations, and appraisal of the community for possible resources and future job placement. A final kind of essential information named was the effect of particular handicaps on development.

Many problems were reported for the area of goal setting. These problems fell generally into the areas of lack of information and processes for setting goals.

The complex nature of the multiply handicapped population, the low developmental levels, and the difficulties involved in appraisal of the population all contribute to a lack of information which is considered to be essential for setting goals. One source of problems was the inadequacy and inconsistency of the results coming from the assessment procedure, resulting from the lack of instruments and tools for lower level populations, lack of experience with these populations, lack of knowledge of lower developmental sequences, and inability to adapt assessment procedures to take into consideration the effects of handicaps or developmental delays. This problem was further compounded by the fact that accurate diagnosis of the multiply handicapped child is often difficult. Another problem creating a lack of information was the unavailability of background information and of appraisal information; this was an often reported barrier where appraisers and goal setters were not in direct communication (or were not the same individuals). In addition, because the potential of these children is hard to assess, difficulties were reported in setting long range goals.

Inadequate knowledge of the sequence of skills and of task analysis were also reported to contribute to inadequate goal setting; ability to use this kind of knowledge was reported to be especially important because very severely handicapped children often do not directly follow developmental sequences.

Process problems reported were generally related to factors to be considered in setting goals and to goal setting abilities of personnel. Factors to be considered included the complex needs of the children and the resulting need to set priorities, the materials, equipment and people resources available to meet the goals, relating short-range to long-range goals, and time available to work on goals. Problems related to personnel abilities were lack of awareness of the importance of goals, disagreement on priority goals, and inability to write specific, understandable, measurable, and realistic goals. Other problems resulted from lack of time for working together to set goals, and for updating. In some cases, teachers were responsible for setting goals in all areas, despite having experience only in the instructional areas.

Suggestions for alternatives for overcoming these problems were generally based on ways of insuring communication between appraisers, goal setters and implementers in an attempt to assure input from various areas of expertise, and to contribute to agreement and carry-over between personnel. The team approach (including appraisers and all levels of implementers) was recommended as a way of setting goals, as was the presence of the teacher and parent at all diagnosis and evaluation sessions. Observation and continuous reassessment were suggested as more appropriate bases than tests for setting goals. It was suggested that specific times be set aside for observations, both at school and at home. Recommendations for sources of goals were the use of specific curriculum guides, and letting specialists have input into goal setting in their area. One recommendation for setting well-written objectives was to train personnel in this process; another was to hire a specialist (such as an educational diagnostician). In order to set priorities and to make goals relevant, beginning in the future and working backward was suggested as a way for analyzing which goals should be set.

Goals, then, as a guide to planning and implementation, are of great importance for focusing services on individual needs. In order to insure that this focus is both realistic and communicable, programs must establish processes for assuring (1) the most relevant input to goal setting, (2) consistency between goals, and (3) carry-over across personnel and environments. The alternatives stated above offer some ideas for establishing these processes.

CHAPTER VI

PROGRAM RESOURCES: INPUT FOR INDIVIDUALIZATION

Every program or school serving handicapped children has resources, both within and outside of the boundaries of the program itself, which are often taken for granted or assumed to be immutable. These resources, however, occurring in the form of staff, physical setting, placement, scheduling, and community resources, are potential sources of alternatives which may be used in individualizing services; the wide range of possibilities can be seen when questionnaire responses are combined to include possibilities mentioned by each program. The intent of this chapter is to outline this range of possibilities as it exists in participating programs.

Physical Resources

Alternatives in physical resources (in available placements, in time alternatives and in staff) contribute to individualization by making more combinations of service alternatives possible, in turn making it possible for a program to meet the needs of a more diverse population. The child in such a program benefits by being able to spend more time in areas of greatest need, and by not being taxed beyond his limits.

Alternatives in Facilities

Location of program. Each different type of program location was reported as having certain advantages and disadvantages for individualizing services. The following table lists these under each primary location; this list of advantages should also be regarded as recommendations which may possibly be applicable as alternatives for other types of programs. By knowing what other programs have found to be advantageous, it is possible to plan more effectively for future changes.

General advantages listed for rural settings were (1) the closeness of the people in the community, and (2) "country living." Disadvantages listed were (1) unavailability of resources, (2) unavailability of teachers, (3) unrealistic environment for training for future living,

and (4) being located far from children who need services. Advantages listed for urban settings were (1) proximity to resources (both people and things), (2) community orientation and location, and (3) central to population. No disadvantages were named.

TABLE 32

LOCATION OF SERVICES: ADVANTAGES AND
DISADVANTAGES FOR MEETING INDIVIDUAL NEEDS,
AS REPORTED BY ADMINISTRATORS AND TEACHERS

<u>Advantages</u>	<u>Disadvantages</u>
<u>Medical School</u>	
1. Availability of medical personnel	1. Isolation from community
2. Medical-educational cooperation	2. Oriented toward sickness
	3. Limited by rules of medical setting
	4. Children treated like patients
<u>Agency</u>	
1. Variety of disciplines available	1. (None listed)
2. Full range of services on-site	
<u>Public School</u>	
1. Contacts with normal children	1. Red tape for field trips
2. Natural environment	2. Lack of ancillary resources
3. Integration as alternative	3. Scattered programs; non-communication
4. Cross-age tutors available	4. Separation of diagnostic from teaching staff
5. Volunteers accessible	5. Architectural barriers (e.g., benches in hall)
6. Live at home	
7. Busing available	
<u>University Campus</u>	
1. People available: students, consultants, teachers	1. Isolation from community
2. Research	
3. Resources available	

Advantages

Disadvantages

Home

1. Parents involved
2. Can take younger children

1. Isolation from other kids and parents
2. Lack of transportation and time

Church

1. Free
2. Nursery facilities available

1. Weekend use by others

Regional Center

1. Large enough population to group

1. (None listed)

Residential

1. Long-term evaluation possible
2. 24-hour programming possible
3. Medical personnel available
4. More programming for living skills
5. Can structure parent-child interaction
6. Specialized personnel available for major handicap

1. Far from home
2. Far from normal contacts
3. Lack of job placements
4. Red tape for making changes
5. Inappropriate models in living situation
6. Routines don't coincide with best programming
7. Built for custodial care; hard to normalize

Architectural characteristics. Many suggestions were made for architecturally controllable variables which were felt to be conducive to individualization. The general characteristics felt to be most desirable were the (1) presence of flexible and movable walls and spaces, and (2) variety of areas available for different purposes. Other characteristics listed as desirable were as follows:

1. Variety and flexibility
 - a. Open and closed spaces
 - 1) dividers
 - 2) movable cubicles
 - b. Floor areas (e.g., stairs, uneven floors, for teaching mobility)
 - c. Wall textures
 - d. Lighting
 - e. Noise levels

2. Special areas
 - a. Central to education
 - 1) gymnasium
 - 2) pool
 - 3) time-out room
 - 4) observation room
 - 5) therapy
 - 6) daily living areas, e.g., kitchen, laundry, bathtub
 - 7) lunchroom
 - 8) recreation facilities
 - 9) showers
 - b. Peripheral to education
 - 1) storage area
 - 2) media center
 - 3) meeting room
 - 4) nursery
 - 5) volunteer area
 - 6) parent area
 - 7) staff area
 - 8) privacy area for children
 - 9) extra rooms
3. Special features for handicapped
 - a. Visual
 - 1) trailing areas
 - 2) indirect lighting
 - b. Physical
 - 1) wide doorways
 - 2) low drinking fountains
 - 3) low toilets
 - 4) electric doors
 - 5) elevator
 - 6) ramps
 - c. Hearing
 - 1) soundproof rooms
 - d. General
 - 1) immediate access to toilets
4. General special features
 - a. Air conditioning
 - b. Intercom or telephone system
 - c. Carpet

As the population changes in size and in kind, new needs arise which must be accompanied by changes in the facility. One solution offered to this problem was to rent, rather than to buy, so that the program could be moved if necessary. A disadvantage which was mentioned for the rented facility was that it could not be structurally changed in order to adapt it to the population.

Designing facilities. In addition to recommending the inclusion of the features named above, several programs made recommendations for the process of designing facilities. Generally, these related to (1) the involvement of personnel and parents in planning and designing, (2) visits to other facilities to observe different types of features as they are actually used, and (3) incorporation of normal living features to as great an extent as possible. The latter recommendations included (1) group homes rather than large facilities, and (2) satellite centers close to the child's parents. One suggestion, in fact, was to forget facilities and take the program into the community.

Placement Alternatives

Given enough personnel and space, programs can be organized so that they are able to provide a number of alternatives for placement for any given child; any one of these alternatives may in turn be the single placement for the child, or may be one of multiple placements.

Program placement alternatives. Several programs reported possibilities for making alternative placements or services available to any one child. For example, a program might offer home programming, a self-contained classroom, and a visiting teacher to other programs. A second program might provide residential services and in addition have a community-based preschool. Other alternatives mentioned were (1) a totally self-contained placement, combining living and classroom resources within the same cottage, (2) residential living with alternatives for on-campus or off-campus instructional programming, and (3) alternating programming in a residential school and at home (e.g., 10 days in residence, 4 at home).

The possibility of alternative placements, whether they be within one program or between several, necessitates some kind of decision-making process which matches the child with the most appropriate placement. As reported by participating programs, placement decisions were usually based on both the program's criteria for admission and on individual consideration of each child. Criteria for admission which were specifically listed were (1) the definition of the population used by the program, and (2) some minimum level of functioning in terms of ambulation, toileting, eating, motor development, social development, mental development, behavior, ability to function on a non-custodial basis, and acceptance of adult contact. Age of child was often listed as another criterion, as were ability of someone to pay for services, space available in the program, and convenience to the child's home. Within the limits imposed by the above criteria and by other policy criteria such as geographical area, placement decisions were reported to be made on the basis of individual considerations of each child. Those considerations specifically named were (1) adequacy of the child's current program, if any, (2) availability of any other program, and (3) capability of the program to meet the child's needs.

Instructional placement alternatives. In addition to possibilities for broad general alternative placements, many programs have alternatives available for placement within the instructional program.

Table 33 shows in which of the more usual placement alternatives the majority of instructional services were delivered; because placement is often a function of handicap, these percentages are given for deaf-blind and multiply handicapped programs separately.

TABLE 33
CLASS PLACEMENT AS A FUNCTION OF
TYPE OF POPULATION SERVED, AS REPORTED BY TEACHERS

Placement	Population Served		
	Deaf-Blind	Multiply Handicapped	Both
	(n=43) %	(n=38) %	(n=5) %
Self-contained regular class	9.3	10.5	20.0
Self-contained regular class with visiting teacher	-	-	-
Self-contained regular class with resource room	7.0	2.6	-
Self-contained special class	69.8	55.3	100.0
Diagnostic class	4.7	5.3	20.0
Hospital	4.7	-	20.0
Homebound	11.6	2.6	20.0
Other	9.3	18.4	40.0

Because more than one placement was sometimes checked as the major setting, percentages may exceed 100.

The placement most frequently reported by all three types of programs was the self-contained special class. All of the combination programs reported such a class as their major placement. Homebound programs were reported by 12 per cent of the deaf-blind programs as the major placement. No program of any type reported the regular classroom with visiting teacher as the setting of the delivery of a majority of instructional services.

A number of other alternatives were mentioned as possibilities for class placement. These included partial integration into a regular class or into other special classes, integration into workshops or vocational train-

ing, self-contained vocational, and scheduling into skill areas (e.g., bedroom, living room for daily living skills).

As with placement into programs, placement within the instructional program necessitates the establishment of some kind of criteria for meeting individual needs. Participating programs named several kinds of criteria. The most prevalent kind were those having to do with physical program characteristics, i.e., available openings and existing adult/child ratio. A second type of consideration listed dealt with child characteristics, and included health limitations, mobility, degree of involvement, priority need, age, achievement, receptive language, and ability to work in groups. Goodness of fit between teacher and child comprised a third type of criteria, and involved consideration of the teacher's training, experience and preferences. While most of these criteria were directed toward creating homogeneity within groups, a final criteria named was "randomness," or having a mix of ages and levels within each group.

In addition to assignment to a particular teacher or group, alternatives within a classroom might or might not involve decisions on grouping. Although grouping has many advantages in terms of teacher time, and allows one teacher to serve more children, with many lower level multiply handicapped children grouping is not a viable alternative. Where grouping was reported, criteria were generally in terms of social or language needs, or on the basis of the particular activity (e.g., snack time).

Time Alternatives

Time alternatives occur both in length of school year and in daily or weekly scheduling. The school year, for example, may be the regular 9-10 month program, with or without an additional summer program, which may or may not be required.

Time spent in the educational program per week generally fell into one of several standard amounts of time. Table 34 gives percentages of programs which usually schedule a child into each of these time alternatives. Since setting of program may be a factor in determining amount of time in the educational program, the table breaks down time percentages into these categories.

No program setting reported five or fewer hours average instructional time per student per week. One homebound program and one private residential school program reported that students spend an average of 5-10 hours per week in the educational program. State schools reported the most instructional time per week, with 56% of the respondents indicating that students spend 25 or more hours per week in the instructional program. The majority of agency programs (54%) reported 25 to 30 hours average instructional time per student each week, while a similar percentage of regular public school programs (57%) stated 20 to 25 hours per week as the average time

TABLE 34
TIME IN EDUCATIONAL PROGRAM PER WEEK, BY
SETTING OF PROGRAM

Setting	Hours Per Week						
	≤ 5 %	>5-10 %	>10-15 %	>15-20 %	>20-25 %	>25-30 %	>30 %
Agency (n=13)	-	-	-	7.7	23.1	53.8	15.4
University (n=2)	-	-	-	50.0	50.0	-	-
Hospital (n=2)	-	-	50.0	-	50.0	-	-
Home (n=1)	-	-	-	-	-	100.0	-
Regular public school campus (n=23)	-	8.7	-	17.4	56.5	17.4	-
Separate pub. sch. campus (n=11)	-	9.1	-	36.4	18.2	27.3	9.1
State School (n=18)	-	11.1	5.6	16.7	11.1	27.8	27.8
Private day school (n=2)	-	-	50.0	50.0	-	-	-
Homebound (n=2)	-	50.0	-	-	50.0	-	-
Private residential (n=2)	-	50.0	-	-	-	50.0	-
Other (n=2)	-	-	-	-	-	50.0	50.0

spent in the educational program. The largest percentage of separate public school programs (36%) indicated that students spend an average of 15 to 20 hours per week receiving educational services.

While the table lists the more usual amounts of time, many programs (79%) reported that, depending upon the child's needs, alternative amounts of time were available. In many of the programs, these alternatives were in the form of optional summer programs, periodic vacations, and the possibilities for spending additional time in therapies, recreational activities, or in one-to-one sessions. Other programs reported alternatives in terms of time spent in other settings, e.g., workshops, regular music classes, or part-time in Headstart programs. A different kind of time alternative was reported in terms of fewer days per week, fewer hours per day, time spent within different instructional areas, and time spent in different placement alternatives (as, for example, in home programming and school programming). A single program, then, might offer an array of alternatives such as a regular program, fewer days or hours, extended hours, part or full-time in home program, part-time in a community program, a cooperative program in two settings, and/or any combination of the above.

Problems arise in creating and using alternatives in placement and scheduling. It was reported, for example, that other programs were not

willing to try irregular schedulings or cooperative arrangements. In addition, staff were reported to be unavailable for non-routine assignments. Transportation was reported to create a problem in allowing both time and place alternatives. Within very small or rural programs, few alternatives were available at all. Finally, parents were reported to be reluctant to give up the familiar and to take advantage of alternatives.

Recommendations for overcoming these obstacles emphasized the use of public relations techniques, both inside and outside of the program, in order to create a variety of alternatives. The program's responsibility would then be to train, coordinate and use these resources.

Within the program, some suggestions listed were (1) to have different starting and ending times, scheduling the most difficult children in the slack times, and (2) to schedule part-time children at different times.

Staff Resources

Variations in staffing, by creating alternatives and combinations of alternatives, also help to create alternatives for children, thus contributing to a program's ability to plan and deliver individualized services. Major variations may occur in size or composition, as well as in training, availability and responsibilities of different staff members.

Size of Staff

The most often named advantage of an increased staff size for purposes of individualization was more opportunity for one-to-one work with children. Increased staff was also reported to offer more flexibility for choice of each child's placement and to make possible more hours of direct training for each child. Another advantage named for creating possibilities for individualization was ability to departmentalize along developmental levels or according to areas of expertise; in general, the larger staff also had the advantage of providing more kinds of personnel.

While reported staff size varied from one to more than 100, actual advantages reported, aside from availability of different types of expertise, were those due to adult/child ratios, rather than to actual size of the staff.

Table 35 shows percentages of programs having different adult/child ratios. Because of different funding patterns for deaf-blind and multiply handicapped, one would expect ratios to vary along this dimension; the table breaks ratios into these categories.

The majority of deaf-blind programs (52%) reported an adult/child ratio of 1:1, although 41% reported a ratio of 1:2 to 1:4. The majority of multiply handicapped program (56%) reported an adult-child ratio of between

TABLE 35

ADULT/CHILD RATIO BY TYPE OF POPULATION SERVED

Ratio	<u>Population Served</u>		
	Deaf-Blind	Multiply Handicapped	Both
	(n=37)	(n=34)	(n=2)
	%	%	%
1:1	51.4	11.8	-
1:2 - 1:4	40.5	55.9	100.0
1:5 - 1:10	5.4	29.4	-
>1:10	2.7	2.9	-

1:2 and 1:4, with another large percentage (30%) reporting a 1:5 to 1:10 ratio. Deaf-blind programs thus reported lower adult/child ratios than did multiply handicapped programs. Both combination programs reported a 1:2 to 1:4 adult/child ratio.

While adult/child ratio is certainly important, it is not equally important for all populations, or for all children. It must be remembered that grouping of children is an alternative which best meets some needs of some populations and children.

Composition of Staff Resources

While size of staff has important consequences for ability of a program to accommodate children who need one-to-one teaching, composition of staff contributes to individualization by allowing specialization. For example, different kinds of expertise were reported to help assure a variety of input into the same problem, and to cover each workable aspect of the child. In addition, variety of personnel was reported to enable children to be placed with individuals whose expertise met priority needs. If the staff is composed of persons who are trained in the same general approach (e.g., precision teaching), cohesion and communication were reported to be a resulting advantage. Another contribution to individualization can be made by houseparents who are also teachers, and thus can add a large number of training hours onto the program. The more areas of expertise, the more diverse the child population that can be served.

A variety of staff can also benefit children indirectly by providing direct benefits to staff and to the program. With diverse expertise available, on-site, on-going, and informal inservice becomes possible.

Differences may also occur in characteristics other than training; one of these is race. A variety of ethnic backgrounds was reported to be a benefit in parent involvement and in inservice to the staff concerning individual differences due to ethnic background.

It might be expected that the more variety available to a program, the more alternatives the program can offer to children.

Table 36 displays percentages of personnel available for a variety of settings; availability is defined in terms of presence as a regular part of the program or presence on a regular consulting basis.

Many other kinds of personnel were listed as being available to certain programs. In the medical area, physicians, nurses and dentists were listed, while in therapy, other persons listed were recreation therapists and therapy aides. Several programs listed parent counselors and respite care personnel. Mental health personnel listed were psychotherapists and psychiatrists. Other specialists listed were orientation and mobility instructors, physical education teachers, art and music teachers, volunteer coordinators, nursery attendants, foster grandparents, bus drivers, peer tutors, behavior managers, program evaluators, janitors, cooks, and dietary specialists.

At least 96 per cent (96%) of programs in all settings reported having teachers, and at least 75 per cent (75%) had teacher's aides. Pediatricians were available to at least 90 per cent (90%) of agency, university, and state school programs, but to only 52% of regular public school and to 75% of separate public school programs. Ophthalmologists were available in at least 63% of the listed settings except to regular public school campuses, of which only 28% had an available ophthalmologist. Otologists and orthopedists were also less frequently available to regular public school programs than to any of the other four settings. Psychologists were reported as being available in at least 82% of all settings, and they were available to all agency and university programs. Speech therapists were also among the most frequently mentioned available personnel, with at least 93% of all settings except separate public school campuses reporting available speech therapists.

TABLE 36

PERSONNEL AVAILABLE BY SETTING OF PROGRAM,
AS REPORTED BY ADMINISTRATORS

Personnel	Setting				
	Agency	University	Reg. pub.	Separate	State
	(n=16)	(n=4)	school	pub. school	school
	%	%	(n=29)	(n=12)	(n=22)
	%	%	%	%	%
Pediatrician	93.8	100.0	51.7	75.0	90.9
Ophthalmologist	62.5	75.0	27.5	66.6	90.9
Orthopedist	75.0	75.0	34.4	50.0	86.4
Otologist	56.3	75.0	31.0	50.0	68.2
Neurologist	62.5	75.0	51.7	41.7	72.7
Nurse	81.3	100.0	66.2	83.4	95.4
Psychologist	100.0	100.0	89.7	83.4	81.8
Diagnostician	62.5	75.0	37.9	50.0	72.7
Counselor	37.4	75.0	48.2	33.3	63.6
Vocational counselor	50.0	50.0	27.5	50.0	63.6
Physical therapist	81.3	75.0	62.0	75.0	86.4
Occupational therapist	75.0	75.0	51.7	66.7	59.1
Volunteer	81.3	50.0	55.1	83.4	40.9
Speech therapist	100.0	100.0	93.1	83.4	95.4
Audiologist	93.8	100.0	72.4	91.6	90.9
Educational director	75.0	75.0	79.3	83.4	77.3
Principal	50.0	50.0	72.4	75.0	50.0
Instructional supervisor	56.3	50.0	72.4	58.3	68.2
Curriculum specialist	56.3	75.0	65.5	75.0	54.6
Audio-visual specialist	56.3	75.0	51.7	58.3	54.6
Teacher	100.0	100.0	96.6	100.0	100.0
Teachers' aides	87.5	75.0	89.7	100.0	90.9
Librarian	37.4	50.0	68.9	83.3	59.1
Social worker	81.3	100.0	79.3	75.0	86.4
Houseparent	18.8	-	10.3	16.7	86.4
Other	6.3	-	20.6	33.3	45.4

Note: Only the 5 settings with the largest number of respondents were used.

Many programs reported using paraprofessionals as a way of meeting funding constraints in serving individual needs of children. Table 37 represents the proportion of professionals to paraprofessionals in various program settings.

TABLE 37

RATIOS OF PROFESSIONALS TO PARAPROFESSIONALS
BY SETTING OF PROGRAM

Setting	Ratio Professional/Paraprofessional
Agency (n=16)	1:.7
University (n=4)	1:.4
Hospital (n=3)	1:1.2
Home (n=1)	1:.25
Regular public school campus (n=30)	1:.5
Separate public school campus (n=14)	1:.8
State school (n=25)	1:1.9
Private day (n=2)	1:.9
Homebound (n=3)	1:1
Private residential (n=2)	1:2.4
Other (n=2)	1:1.2

The lowest professional/paraprofessional ratio was that found in the home program, where there were four professionals to one paraprofessional. The ratios for agency, university, regular and public school campuses and private day school programs were also less than 1:1, indicating that professionals outnumber paraprofessionals in each of these settings. The highest ratio reported was for private residential programs (1:2.4), followed by that for state schools (1:1.9). The ratios for the hospital and homebound programs were both reported as 1:1 or greater.

The role of volunteers. Individualization with multiply handicapped children often necessitates a ratio of one child to one teacher. Because funding usually does not allow the hiring of an adult for every child, volunteers can play an important role.

A variety of kinds of volunteers were named. These were parents, peer tutors, foster grandparents, high school students, sixth graders, and students from special education classes; practicum students provided another source of adults.

Roles of volunteers ranged from total involvement in teaching single children or groups, to facilitative involvement such as providing transportation, to involvement such as fund raising.

Table 38 shows percentages of programs using volunteers in each of the common ways listed, as found in programs funded by different sources.

TABLE 38
USE OF VOLUNTEERS BY MAJOR SOURCE OF FUNDING,
AS REPORTED ON ADMINISTRATIVE AND TEACHER QUESTIONNAIRES

Activity	Source of Funding									
	Public		Federal		Private		Tuitions		Other	
	A (n=29)	T (n=32)	A (n=41)	T (n=39)	A (n=4)	T (n=4)	A (n=1)	T (n=1)	A (n=7)	T (n=6)
	%	%	%	%	%	%	%	%	%	%
Individual										
teaching	55.2	43.8	56.1	41.0	100.0	75.0	100.0	100.0	71.4	33.3
Therapy	13.8	6.3	7.3	-	25.0	-	-	-	-	-
Group work	17.2	3.1	19.5	10.3	25.0	-	100.0	100.0	14.3	-
Making										
materials	13.8	9.4	2.4	2.6	-	-	-	-	42.9	-
Other	34.5	21.9	41.5	41.0	75.0	25.0	-	100.0	42.9	83.3

A=Administrator; T=Teacher

Volunteers were most frequently used, in all programs, for individual teaching or "other" activities. They were involved rather infrequently in therapy or in making materials (except in programs receiving the majority of their funding from sources other than the ones listed, where 43% of the administrators report that volunteers make materials). The use of volunteers for group work varied according to whether it was reported by administrative or teacher questionnaire respondents. For example, 17% of the administrators from publicly funded programs reported the use of volunteers for group work, while only 3% of teachers from the same programs reported using volunteers for this purpose. Similar lack of agreement occurred in the federally funded programs. Administrators invariably reported more involvement in every activity than did teachers.

Other kinds of close involvement listed included use of volunteers in tutoring, as therapy aides, feeding aides, for personal care, nursing,

dormitory care, recreation, screening, testing assistance, and as substitute aides. With the physically handicapped, aides were said to be important for moving children from place to place; with the blind, volunteers were used as readers. In other programs, volunteers were used in data collection, for parties, crafts, play, field trips, swimming, and gym. Others reported the use of volunteers in establishing contact with self-abusive or withdrawn children.

A different kind of involvement was noted in which volunteers facilitated operation of the program, but did not necessarily have contact with the children. In this category were named money raising, doing clerical work, receptionist, putting on shows and assemblies, doing sewing and mending, providing food services, operating the library, running errands, putting out a newsletter, doing remodeling, and in an advisory capacity. Volunteer parents were reported as doing parent-parent counseling, and a volunteer parent was reported to be used as the volunteer director.

The role of parents and houseparents. Because parents and/or houseparents (i.e., whoever cares for the child outside of the instructional program) constitute an important part of the child's life, because multiply handicapped children often require more one-to-one teaching than can be provided within the instructional system, and because what is being taught in the instructional program is often an integral part of the living environment, it is essential that they be considered as part of the teaching "staff," whether it be on a formal or informal basis.

(In addition to being important in terms of their interaction with the child in a teaching capacity, parents must also be considered apart from the child. Programming for parents for their own sake, rather than for the sake of the child, will be dealt with in Chapter IX.)

Involvement of parents and houseparents as resources for the child's instructional program fell basically into two levels, facilitative and integral. Facilitative involvement included being informed of decisions and/or giving approval to decisions, being informed of goals, objectives and activities, and being invited to observe the instructional program. Integral involvement included, to a greater or lesser degree, being involved in goal setting, planning and implementing, and acting as teachers. Involvement, therefore, differed both in areas in which the person was involved and in degree of involvement within those areas. One example can be found in the area of self-help; degree of involvement might extend from being aware that self-help skills were an area of instruction, to knowing what was occurring, to being asked to implement, to being the total implementer.

Problems in involvement of parents and houseparents in the instructional sequence generally had to do with attitudinal problems such as lack of concern, with inability to carry out programs because of lack of training, and with organizational constraints such as non-existence of structures for cooperation.

Recommendations for using parents and houseparents as viable and essential resources for the instructional program included (1) including them on an

equal basis with teachers in making and implementing decisions, (2) having regular staffings, (3) using on-site practice to train them to use instructional techniques, (4) using educational personnel as houseparents, (5) structuring channels for communication, (6) making them aware of the importance of their role, and (7) reorganizing the entire organizational structure.

Location of Personnel

While having personnel available is of course a prerequisite to using them, many teachers reported that individualization of services could be enhanced by having ancillary personnel as close to the educational program as possible. That is, alternatives exist in the location in which those personnel who are available actually implement their services, ranging from off-campus private offices to the child's classroom. This is especially important for personnel whose techniques should be carried over into situations such as the therapy areas. The more integration of personnel, the more communication and carryover take place, and consequently the more possible it is for each person working with the child to consistently meet the child's needs in areas which may not be within his own area of expertise.

The team approach to the educational program, which often combines members of different disciplines, was highly recommended by several respondents. Teams which were reported varied considerably in composition, but a typical example was a teacher, a physical therapist and a social worker. For an infant-child program, an example named was a two-member team, an educator and a social worker, with capability for pulling other members in as needed. An atypical example, from a program implemented entirely by volunteers, was a team composed of one teacher and five volunteers, one for each day of the week, responsible for programming for one child.

An advantage reported for departmentalization was the concentration of expertise. That is, each person could deliver services to children in only his areas of specialization.

Personnel and Individualization

The current emphasis on individualization has evidently had its main effects not on what actually happens between adult and child, but upon the specificity with which it happens, breadth of responsibilities of personnel, accountability, staffing patterns, and recognition of the need for communication.

Because programs must, at least more than in the past, account for each child's progress, personnel have had to develop new skills for setting goals, programming, record keeping and evaluating. New responsibilities reported also included the training of paraprofessionals to carry out programs independently. Thus the teacher in many cases is becoming more of a supervisor and doing less direct teaching. Paraprofessionals are in

turn becoming more involved in instruction and therapy. Because meeting the needs of the multiply handicapped child requires the services of a number of professions, communication between personnel has become more of an area of concern. In addition, personnel are beginning to extend their communications to parents on a much more inclusive basis. Since individualization demands meeting all of the needs of the child, many personnel have had to gain new expertise in areas such as recreation and daily living skills.

Thus, as individualization of services to meet the needs of these populations has been extended by definition to include more than instruction, so has the role of each person working with a child broadened to include new skills and responsibilities.

Role changes take time, as does the orientation of programs and personnel to the concept of total services. This circumstance, combined with other factors such as non-trained personnel, has resulted in a variety of problems, as reported by participating programs.

One such problem was the unavailability of persons who have been trained to work specifically with the population served by the program. Specific problems named were lack of knowledge of the multiply handicapped, inadequate training for handling a heterogeneous population, and inadequate training for teaching groups and/or individuals. In general, the children were reported to not fit the training, and vice versa. Another problem related to unavailability was the reluctance of personnel to work on grant funded projects, as the majority of deaf-blind and many of the multiply handicapped projects are.

Another type of problem was related to personnel attitudes. For example, several programs reported resistance to any comprehensive change. Another problem was the tendency of personnel to agree to change, but not to implement it. A more specific problem named was the pessimism expressed by medical personnel about the children.

Problems listed for specific types of personnel were the fast turnover and non-training of paraprofessionals and the resulting inconsistent handling of children, the conflicting responsibilities of personnel such as houseparents and part-time personnel (who are often unavailable for meetings), professionals and volunteers who don't expect enough of the children, and unavailability of substitutes.

The area of communication was reported as being a major source of problems, and is of such important that it will be discussed in a later section. In general, physical separation of personnel (for example between shifts, between teaching personnel and parents, between centers, and between teachers and therapists) was listed as a major contributor to these problems. Time for communication concerning a specific child was also listed as a major problem.

Many alternative ways of resolving these problems were listed by participating programs. In the area of availability of personnel, the most pre-

valent suggestion, as discussed in another section, was that personnel work with the child in a location as close to the classroom environment as possible. Another was that ancillary personnel see the child on a regularly scheduled basis. Full-time personnel were much preferred to part-time, especially those with specialized training such as occupational therapy. Having enough aides for teachers and therapists, and having a volunteer coordinator, a home teacher, and a liaison person between administration and implementers were further suggestions. A final suggestion was that specialized personnel be available to parents on a regular basis.

Several recommendations were made for the grouping of personnel. The most prevalent, as stated before, was for teaming. Within this category, it was suggested that personnel be grouped for compatibility, as well as for areas of expertise. It was also suggested that teams be regarded as decision-making bodies, and be almost totally responsible for children assigned to them. An alternative suggestion was to place team responsibility ultimately with one person. The second most prevalent recommendation was departmentalization, or grouping into departments covering areas such as language development. Other suggestions were (1) to assign old aides to new personnel, (2) to put organized aides with problem children, and (3) to locate people with similar children close to each other. In general, the presence of more than one alternative grouping was felt to be important. Alternatives listed for scheduling personnel were (1) to schedule more during crucial hours, (2) to assign the best teachers to the most difficult children, and (3) (probably in contradiction to #2) to assign personnel to the kind of children they like.

Communication and individualization. In programs serving multiply handicapped children, where the diversity of the child's problems necessitates the involvement of more than one type of expertise, communication between personnel is essential, and has effects for the child, the personnel, and the program.

Good communication was reported to benefit the child in the following ways:

1. Carryover of programming
2. Gearing of program toward major needs
3. Bring together diverse ideas
4. Consistent reinforcement
5. Consistent expectations

Benefits listed for personnel (and indirectly for the child) were:

1. Sharing of children possible
2. Teaming more effective
3. Less duplication of service
4. Less contradiction of information
5. More alternatives for planning
6. Sharing of expertise
7. General good feelings
8. Constant problem solving

The program also benefits from good systems of communication. These benefits arise from:

1. Constant informal staffings of children, and
2. Supervisor input on an ongoing basis.

Many programs specified barriers to communication. A major barrier named was non-contact between personnel, both those personnel with the same role, and those with different roles. Indirect communication was named as another type of non-contact. This included communication via a third party, in writing, or by word of mouth. Physical barriers contributing to non-contact were reported to exist in rural areas, and in very spread out programs. Territoriality was listed as another barrier to communication resulting from non-defined roles, and from autonomy of areas, i.e., classroom and therapy.

Problems listed as due to administration were red tape, administrative authoritarianism, non-notification of new information, and dissemination of too much detailed information. Another administrative problem listed was lack of time to meet and share.

Communication problems were also reported to result from personnel turnover and absenteeism, from differing ideas about goals and techniques, and from inability to use constructive criticism.

Recommendations for alternatives to overcome these problems were also listed. These consisted generally of suggestions for organizing the structure of the program so that regular face-to-face contacts occurred between all persons working with or having input into the program for any given child; establishing time, channels, and a specific schedule for communications were suggestions included in this area. Another suggestion was to have support staff working directly in the classroom. Another was that each person working with a child should understand the role and goals of the others.

Other suggestions emphasized the necessity for making communication happen, rather than assuming that it would. For example, one suggestion was the provision of training in communication skills and in overcoming barriers to communication.

The team approach was suggested as a way of insuring communication; by joint planning and close physical proximity, teams are more assured of communication between members.

Finally, it was suggested that records be kept of all meetings and disseminated to all involved persons, and that all personnel be assigned definite roles.

Training and individualization. Because individualization requires a greater specificity of adult-child interaction, and in addition a greater breadth of responsibility, training of different kinds has been necessary to better enable personnel to individualize. Training was reported to have covered specific instructional approaches such as process teaching, precision teaching or behavior modification, and more limited

areas such as task analysis, sequencing instruction, writing goals and objectives, and writing instructional plans. Assessment skills such as behavioral observation, behavioral analysis and data collection were also reported as **areas** of training. Training was also provided in curriculum development and in using a specific curriculum. Areas related directly to children constituted another training area; these included physical care of children, communication techniques such as sign language, and therapies. Child development was another such area.

Because individualizing programs for multiply handicapped children involves many persons, other areas of training were communication and human relations skills, both between personnel, between personnel and parents, and between personnel and outside resource persons. Other kinds of training reported were the use and training of volunteers, and finding resources. Another area of training was in the use of learning centers.

Community Resources

Resources outside of a program can contribute to individualization in a number of ways. They may provide information to the program, for example, by helping to identify home problems, or by providing results of a formal evaluation. Community resources may also provide equipment and/or materials, transportation for children, and liaison with the family. In addition, they may provide support services such as money, medical services, counseling, diagnosis and evaluation services, or special services such as mobility training. In general, they allow programs to offer a wider range of services, and thus to increase their number of alternatives.

Table 39 reports the percentages of programs using a variety of kinds of resources, according to program setting.

Other kinds of resources listed were day care, therapy, regional centers, recreation departments, materials centers, charity hospitals, and Regional Resource Centers.

The one home program, although it may have available resources, did not report making use of any of them. Similarly, the two hospital programs either do not have available or do not make use of mental health, civic, and respite care services. The only settings which reported some use of all available resources were the separate public school campus and state school programs. The majority of settings do not have respite care resources available, or do not make use of them. The majority of resources used included health services (50 to 100 per cent of program except the home program) and welfare services (48 to 100 per cent of programs except the home program). Mental health resources were utilized by 23 to 50 per cent of all settings except the home and hospital programs. Of the settings reportedly using

TABLE 39

USE OF COMMUNITY RESOURCES BY SETTING OF PROGRAM

Setting	Community Resources					
	Health %	Mental Health %	Welfare %	Civic %	Respite Care %	Other %
Agency (n=15)	66.7	26.7	73.3	33.3	13.3	-
University (n=4)	100.0	25.0	100.0	50.0	-	-
Hospital (n=2)	50.0	-	50.0	-	-	-
Home (n=1)	-	-	-	-	-	-
Regular public school campus (n=27)	59.3	33.3	48.1	25.9	-	-
Separate public school campus (n=13)	61.5	23.1	53.8	15.4	15.4	7.7
State school (n=21)	71.4	28.6	52.4	33.3	23.8	4.8
Private day (n=2)	50.0	50.0	50.0	50.0	-	-
Homebound (n=2)	100.0	50.0	100.0	-	100.0	-
Private residential (n=2)	100.0	50.0	50.0	50.0	-	-
Other (n=2)	50.0	50.0	50.0	-	-	-

civic services, from 15 to 50 per cent of the respondents indicated such utilization.

Responsibility for coordinating these resources was reported to belong to a variety of persons or teams, including the teaching team, a case coordinator, an advocate, the living unit supervisor, an interagency council, or an outside person such as a public health nurse or state field consultant. In other cases the responsibility belonged to the first agency contacted. In some, it was not specified.

Different resources will assume different degrees of importance depending upon what is available within any given program. Table 40 shows rankings in order of importance, according to personnel available, of various kinds of community resources.

The resources considered to be the most important by a majority of respondents were the health resources. However, the respondents who mentioned "other" resources usually ranked them very highly. The private residential program respondent ranked only health resources. No resources other than health or "other" received a rank of 1 from any program. Mental health resources were most frequently reported as important (ranks 1 or 3)

TABLE 40

MEAN RANK OF RESOURCES IN ORDER OF
IMPORTANCE, BY SETTING OF PROGRAM

Setting	Resources					
	Health	Mental	Welfare	Civic	Respite	Other
	$\bar{x}$ rank	$\bar{x}$ rank	$\bar{x}$ rank	$\bar{x}$ rank	$\bar{x}$ rank	$\bar{x}$ rank
Agency (n=11)	1	4	2	6	5	3
University (n=3)	1	2	3	5	4	-
Hospital (n=2)	1	3	2	4	5	-
Home (n=1)	1	2	3	5	4	-
Regular public school campus (n=25)	1	4	3	5	6	2
Separate public school campus (n=13)	2	4	3	5	6	1
State school (n=17)	2	3	4	5	6	1
Private day (n=2)	2	4	3	6	5	1
Homebound (n=1)	1	5	2	4	3	-
Private residential (n=1)	1	-	-	-	-	-
Other (n=2)	1	3	2	5	4	-

(A blank indicates that the choice was not ranked by that setting).

by the university, hospital, home, state school, and "other" settings. The only setting ranking welfare services which did not give a rank of 2 or 3 was the state school setting. (As many state school programs are primarily residential, this is to be expected). Civic and respite care resources received low ranks from almost every setting, indicating they they are considered less important or useful than other community resources.

Problems reported with using community resources in individualizing programs fell into several categories. First, some families were not able to afford the services, especially if they were middle income; others wouldn't follow through on referrals. Second, in some cases, availability was limited by such factors as being in a rural area. A third type of problem had to do with red tape within both the program and the community resource, waiting lists, exclusion criteria such as age or handicap, and changes in personnel and funding. A fourth problem named was the lack of coordination between services, resulting in a series of disconnected short-term interventions by agencies which might be very different in philosophy. Finally, the lack of knowledge within the program itself of what was available and within the community resource of what was needed by the multiply handicapped

populations interfered with productive use of resources.

Suggestions for better use of these resources for meeting children's needs were primarily in the areas of communication and coordination. Specifically, it was recommended that program personnel be informed as to what is available, and that a file of services be kept. Another recommendation was that resources be found which share a common philosophy with the program. In addition, it was recommended that services be cultivated through on-site observation and meetings, by including resources in the original planning of the program, by informing them as to what is needed, by demonstrating for them how they can serve kids, and by locating a specific contact person within each resource. Recommendations for coordination were to make resource people part of the educational team, to establish an interagency council, to have a written policy for coordination, to assign specific responsibility for coordination of services for one child, and to create a role within the program of child advocate. Finally, it was recommended that parents be educated as to what is available and how to use it.

Summary

When the areas of placement, grouping, scheduling, staffing and use of community resources are viewed as sources of alternatives which may be selectively chosen on the basis of the needs of one child, these areas can become important resources for individualizing programs. While any one program may tend to view its own alternatives as the universe of what may be available, the lists of alternatives presented in this chapter indicate the wide variety of what may become available with awareness and planning.

CHAPTER VII

THE INSTRUCTIONAL PROGRAM

Preceding sections of this report have dealt with individualization of total services, and with the processes of defining needs and setting goals within an expanded definition of individualization. The present chapter focuses on the area which is traditionally the only area considered in discussions of individualization, i.e., the central instructional level of the program (see model, Chapter IV).

Although in reality the processes of appraisal, goal setting, and arrangement of environmental variables cannot be separated from instruction, for the purposes of this paper they have been; preceding sections may be regarded as a context within which the instructional program occurs. The instructional program may now be thought of as being composed of methods of instruction and behavior management, curriculum, materials, and equipment; individualization of instruction may be defined as decision making concerning the arrangement of alternatives within these variables to meet individual needs.

Alternatives for Curriculum

Curriculum is defined for the purposes of this report as the content of instruction, as what is taught, rather than how it is taught. Few teachers of multiply handicapped children would disagree that the curriculum for each child should cover specific content alternatives selected to move the child toward goals stated to meet his own particular needs. An individualized curriculum serves to organize instruction into areas which are thought to be relevant for that child. It also serves as a communication tool between personnel, and hence contributes to consistency and common focusing of efforts.

There is, however, some disagreement as to the form a curriculum should take. While many programs advocate the use of written and organized guides to instructional content, whether they be academic or developmental, others totally disagree, and advocate developing a curriculum based solely upon the child, developed individually for each child.

The use of curriculum guides (whether published or unpublished) was reported to contribute to individualization by providing a set of sequenced skills and

content, thus contributing to carryover of the child's program on a longitudinal basis. Another advantage reported was that the presence of a set curriculum released thinking time for the teacher. A final was that curriculum usually provided a set of general goals, from which specific goals could be developed to meet the needs of each child.

The development of an individual curriculum for each child, on the other hand, was reported to better meet the needs of the multiply handicapped child. Because few curricula are developed specifically for multiply handicapped populations, because the child's development is often out of sequence, and because so many areas of expertise are needed to meet the complex needs of this type of child, advocates of this method reported advantages for the child through basing the curriculum directly on appraisals done on the child.

The majority of programs reported combinations of these two opposing points of view, and used a curriculum guide (or several) as a basis for instructional assessment and for setting goals; at the same time, they reported the need to adapt most curricula to meet the needs of the population. Programs often reported expanding set curricula to meet their own needs by adding or subtracting levels, or by branching out of the sequence into another one.

Within the context of the definition of individualization presented in this report, the curriculum area encompasses a set of alternatives from which to choose what best fits the child and the situation, whether it be used as is, modified, or developed.

Appendix E presents a list of curricula used by participants in this project, covering a variety of subjects and areas; designed for diverse populations, some include goals and objectives, some have activities, some combine appraisal and planning areas, and some present task analyses. Most were reported as having to be modified in some way. The listing includes authors and addresses, if available. As with the list of appraisal tools, the curricula on this list vary according to their formality, standardization, and whether or not they are published. No attempt has been made to judge their quality. This report includes these curricula within the framework of a state-of-the-art, presenting alternatives for decision-making.

Developing (or adapting) a curriculum for an individual child was reported to follow a general sequence in each area of interest of assessment of entry level, setting long-range objectives, task analysis, setting short range objectives, sequencing objectives, and specifying activities, materials, equipment, and type of teacher-child interactions. In order to do this effectively, certain resources were reported to be valuable; programs reported the use of a variety of such resources in developing individual curricula. As would be expected, these were similar to the resources used for setting goals. One such resource was the literature, which was reported to be used for ideas on infant and child development, activities, developmental scales, and descriptions of other programs. Appraisal tools from a variety of disciplines were also used, as were existing curriculum guides. People were another important resource: individuals listed were (1) specialists in different areas of development and in task analysis, and, especially, (2) teachers. Other factors to be considered included availability and teaching style of potential implementers (teachers, parents, aides, volunteers, and therapists).

A variety of types of personnel were reported to be involved in choosing and developing individual curricula. Table 41 shows percentages of different individuals involved by the upper age limit of the program, as reported by teachers.

TABLE 41
PERSONNEL INVOLVED IN CHOOSING OR DEVELOPING INDIVIDUAL
CURRICULA, BY UPPER AGE LIMIT OF PROGRAM

Personnel Involved	Upper Age Limit				
	5 years	9 years	12 years	15 years	21 years
	n=2 %	n=10 %	n=21 %	n=14 %	n=37 %
Teacher	50.0	90.0	85.7	85.7	81.1
Parent	-	-	14.3	21.4	2.7
Educational Director	-	40.0	19.1	14.3	29.7
Psychologist	-	10.0	4.8	14.3	2.7
Therapist	-	-	9.5	7.1	18.9
Other	50.0	40.0	38.1	57.1	35.1

Other persons named were social service personnel, consultants in such areas as audiology, and the public school teacher if the child were integrated. In addition, several types of teams were named as being developers of individual curricula. These consisted of teacher teams, plus teams composed of teacher-aide, teacher-therapist, and teacher-consultant. In addition, one program reported having a curriculum committee; members were not specified.

Teachers were reportedly always involved in choosing or developing curricula. Parents were involved in approximately a fifth of the programs enrolling students up to 15 years of age. An educational director was involved in 30 percent (30%) of the programs with an upper age limit of 21 years, and in 40 percent (40%) of the programs with an upper age limit of 9 years.

Problems were reported in using both kinds of curricula (set or developed individually). Setting priorities for curriculum areas and not having information for areas other than education were problems in using both kinds of curricula. In using curriculum guides, the guides themselves were often reported to be a problem. They were reported to be unrealistic in expectations, to have too much distance between steps, to be too narrow in breadth of areas covered, and to move too fast. The nature of the child was also said to interfere with the use of a sequenced curriculum guide; some of the child characteristics named were low level (lower than the guide), non-sequential development of skills (for example in being able to perform higher order skills without having learned attending and imitating skills),

diversity of functioning across areas, and the wide range of needs within one population, or even within one small classroom. A different type of problem reported in the use of curriculum guides was lack of knowledge about, and access to, what is available.

In developing an individual curriculum, major problems were reported to be the lack of assessment tools, the lack of time and personnel to develop the curriculum, the lack of training in curriculum development (resulting, for example, in the confusion of goals and activities), and not knowing in which areas to set objectives for each child. Because of the general lack of experience in the whole field of education of the multiply handicapped, a total reliance on the teacher's judgment was reported to result in many wrong judgments.

Recommendations for use of curriculum alternatives ranged from "Don't waste time developing; it's already been done," to "Don't use any curriculum except one developed for the child."

Because of the lack of assessment tools, teacher experience, time, and resources for developing individual curricula from scratch on each child, and because of the inadequacy of available curricula for the population, it is suggested that some compromise between the two positions is most realistic. By defining individualization as a process of decision making based on the needs of a child and upon environmental capabilities, both approaches become viable. The availability of a number of curriculum guides, rather than just one, puts curriculum guides into the position of providing alternatives, rather than being the alternative. If the alternatives fit, then using them can save a great deal of time, and can provide guidance for inexperienced personnel. If they do not fit, then curricula must be developed. In either case, the procedure for choosing should be systematic and based on knowledge of both the child's needs and the environment's capabilities.

Blindly following a pre-set curriculum guide or blindly developing an individual curriculum seem to be equally poor choices. All alternatives are viable ones for consideration.

Alternatives for Instruction

While curriculum is defined as content, instruction is defined as the process used for presenting content.

Of the participating programs, 59% reported using a specific approach to instruction, ranging from highly structured to highly unstructured approaches, and including prescriptive and diagnostic teaching, precision teaching, behavior modification, process teaching, structured discovery, and the unit approach. These approaches varied considerably in philosophy, types of activities implied, and roles of the teacher and child; since much literature exists on each approach, they will be but briefly defined here.

Prescriptive Diagnostic Teaching: Based on the pinpointing of specific levels of behavior, usually in content areas; teaching aimed directly to those levels, with provision for feedback and change. May also mean pinpointing of strengths and weaknesses in learning modalities, and teaching toward strengthening weak areas or using strong areas.

Precision Teaching: Based on a precise sequence of pinpointing behavior, setting objectives, specifying environmental conditions, teaching, measuring, and charting. May be focused on content areas or on behavior.

Behavior Modification: Based on principles of conditioning, similar to precision teaching. Usually focuses on behavior rather than content areas. Specifies small steps, reinforcers, and time. Relies on specific data as a record of progress.

Process Teaching: Emphasizes learning processes, works from dependence to independence in each area of development. Environmental variables change in function as child progresses from sensory or motor learning through the use of language to having independent ideas.

Discovery Approach: Based on philosophy that child will seek appropriate experiences if environmental conditions motivate him to search. Environment is arranged to promote discovery. Usually limited to content areas.

Unit Approach: Uses units to help child generalize principles across situations. Content to be learned becomes part of the unit.

Instruction may also vary in characteristics which are not necessarily tied to any specific approach. These include the medium through which instruction occurs (materials, equipment), who presents the instruction (teacher, parent, aide), time spent in instruction, and whether or not the instruction is on an individual basis, in a small group, or in a large group.

Advantages named for having a specific instructional approach were that it (1) forces more specific planning and cohesion, (2) makes implementation consistent with individual goals and management techniques, and (3) helps teachers evaluate their methods.

As in the case of curricula, it would seem that the presence of some specific approach and philosophy in the area of instruction would both promote systematic thinking and help insure consistency. In addition, it could help to promote comparable record keeping for purposes of evaluation. However, it would also seem that the same approach would not necessarily meet all of the needs of any child, or of all children. Ideally, then, instructional variables and procedures should also be regarded as a set of alternatives from which to choose, given the needs of the child in any particular instance. This dilemma can only be solved by each program; the solution must be based on such considerations as teacher capabilities, presence of resources, need for consistency between teachers, and general levels of the population served.

Alternatives for Behavior Management

While with some children behavior management is actually the focus of curriculum and instruction, for other children it becomes a peripheral variable which must be considered to ensure smooth instruction in other areas.

Several programs reported specific approaches to behavior management. Those named were behavior modification, contingency management, reality therapy, play therapy, and psychotherapy. Other programs mentioned combinations of these. In general, most programs reported relying on common sense in their approach to behavior management.

Different individuals may be involved in choosing alternatives for behavior management for a particular child. While this is often done by each person individually, within his own area of contact with the child, it may also be done on a group basis, either at a teacher level or across levels including personnel such as supervisors or administrators.

Table 42 shows percentage of participation of different individuals in making behavior management decisions.

TABLE 42
INDIVIDUALS INVOLVED IN BEHAVIOR MANAGEMENT DECISIONS,
BY UPPER AGE LIMIT OF PROGRAM

	Upper Age Limit				
	5 years n=2	9 years n=10	12 years n=21	15 years n=14	21 years n=37
Persons Involved	%	%	%	%	%
Parent	50.0	-	14.3	14.3	8.1
Psychologist	-	20.0	28.6	7.1	24.3
Teacher	-	80.0	81.0	57.1	62.2
Supervisor	-	20.0	4.8	-	18.9
Program director	-	-	4.8	7.1	5.4
Other	50.0	20.0	23.8	64.3	37.8

Other individuals named were teacher aides, social workers, resource teachers, therapists, consultants, psychotherapists, and physicians. The administrator was said to be involved in cases where negative consequences were being considered.

Teachers were reportedly more frequently involved in behavior management decisions than were other personnel. At least 57% of all programs (except those with an upper age limit of 5 years) reported teacher involvement. In general, the older the students the program enrolled, the greater the number of different types of personnel involved. (It must be kept in mind that there were substantially more respondents from these programs, so that the chances of all personnel listed being mentioned at least once were greater). Psychologists were reported to have input into behavior management decisions in 20% of programs whose upper age limit was 9 years, 29% of those whose limit was 12, and 24% of those whose limit was 21. They were reportedly involved in only 7% of the programs with an upper age limit of 21.

Participating programs made a number of suggestions for planning individualized behavior management techniques. The suggestions made most often were to base technique decisions upon direct consideration of each child's behavioral patterns and the environmental contingencies surrounding them, and to reassess regularly. Different techniques presuppose different child capabilities and desires, and techniques must therefore be individually planned. An obvious example is that the child must be able to communicate on an image level for reality therapy to be viable.

Planning suggestions also included (1) building behavior management into the total program, (2) precise determination of what behavior is desired, (3) using consultants on a regular basis.

A variety of methods were reported for insuring the implementation of behavior management decisions for individual children. One important consideration reported was communication to all involved persons. Methods reported for communication were (1) involvement of all implementers (including parents and houseparents) in deciding on methodology, (2) disseminating written decisions, (3) putting signs up on the walls giving procedures for reaction to each child's behavior, (4) having regular discussions between implementers, (5) setting up a system of notesending between implementers, (6) disseminating staffing notes on a regular basis, (7) writing guidelines in understandable language, and (8) using clipboards hung up in handy places.

A second important consideration reported for insuring implementation was some system of recording progress or change in behavior. Several methods were mentioned, including daily charting, progress reports, regular observation, record keeping by all implementers, and regular evaluation of methods. A third kind of approach for insuring implementation might be called "administrative management", and involved (1) building behavior management into the program proposal, (2) using written contracts between persons involved, in which all agree to the methods decided upon, (3) supervision of implementation, (4) support of methods by administration, and (5) having a child advocate responsible for consistent implementation by all individuals involved.

In addition, suggestions for implementation included (1) arranging the environment to make occurrences of the behavior and consequences very clear to the child, (2) using practicum situations to train implementers to use techniques employed, (3) limiting the number of persons responsible for implementing the techniques with the child, and (4) using record keeping as a source of reinforcement for both child and implementers.

Thus, as in other areas of the instructional program, any feasible method should be regarded as an alternative for action.

Alternatives: Materials and Equipment

Given the definition of individualization as a decision-making process, environmental variables fall into areas or categories from which alternatives

may be drawn to meet individual needs and characteristics of individual children. Thus, while in some definitions of individualization the presence of certain kinds of materials (self-paced) and equipment (independently operated by the child) constitute the essence of the definition, in the present report they become another source of choices for designing a learning environment for each child.

Participants reported that materials and equipment contributed to their ability to individualize in a number of ways. Choices in these areas were reported to be based on criteria such as motivational factors, physical needs, present developmental levels, the concept or skill being taught and relevance to independent living skills, and to be based on input from parents, appraisers, therapists, and supervisors. Judicious matching of child, equipment and materials can both facilitate the child's ability to function independently and can extend the time that a child may spend interacting with a one-to-one learning environment.

With multiply handicapped children, the choosing of materials and equipment to contribute to functional independence goes beyond the concept of instructional sequences to materials and equipment which are designed to "normalize" the child. Minimization of the handicap and strengthening of other areas are essential considerations in the arrangement of each individual child's environment. For example, individualizing an environment for a child who is deaf and physically handicapped might include the choice of equipment for amplification of sounds and of a trampoline for strengthening gross motor capabilities. With these children, the handicaps become major criteria for choice, both as they affect the more traditional areas of instruction (e.g., reading) and as they themselves become focuses of the educational program (e.g., learning to use functional hearing).

A great variety of materials and equipment were reported to be valuable for individualizing programs. Appendix F presents these alternatives in the categories under which they were reported; many could obviously be just as easily placed in others. The boundaries should therefore not be seen as rigid. As is the case in the appendices covering appraisal tools and curricula, the purpose of the present tables is to expand knowledge of alternatives as they have been reported by participating programs.

A number of problems were reported in both using and choosing materials and equipment. Problems named in connection with using materials and equipment included, first, their presence: either too few (resulting from lack of money), too many (resulting in storage problems), or not having them when needed (because of having to schedule and share). A second problem area was the condition of the materials and equipment; this covered (1) problems in getting repairs, and (2) inappropriateness for specific children. For example, low level materials were reported to not be durable enough for older children functioning at lower levels. Another example was inappropriate size of the furniture in relation to size of the child. Independent use of equipment and materials by the child presented a third problem area. Teaching a multiply handicapped child to use materials and equipment independently was reported to take a great deal of time. In

addition, materials were reported many times to not be suitable for independent use because of the medium of which they were made (e.g., many children eat cardboard). A fourth type of problem reported with using materials and equipment was the non-adaptability of many of them. In addition, inflexible use was reported to create situations in which materials and equipment controlled, rather than contributed to, the educational program.

Problems named in connection with choosing materials and equipment were primarily in the area of inappropriateness of available choices for the multiply handicapped population being served. Specific problems mentioned were (1) not low enough in level, (2) move too fast, (3) not usable independently, (4) misrepresentative advertising, (5) few choices designed specifically for the population, (e.g., the great variety of needs, or the unresponsiveness of many of the children), and (6) not being able to try things out before buying them. As a result, materials and equipment often reportedly had to be completely modified or constructed, resulting in a loss of time. Another type of problem had to do with constraints imposed by lack of money, and by time lags between ordering and receiving materials and equipment.

Many recommendations were made for using and choosing a variety of appropriate kinds of materials and equipment for meeting individual needs. Recommendations for use included (1) setting up a central media center with schedules for use of materials and equipment in order to insure equal sharing, (2) individually loaning out what is not currently being used, (3) making materials and equipment available to parents and/or houseparents, (4) using "real-life" materials and equipment, (5) using the same resources in a variety of ways, (6) matching the materials and equipment to identified needs and objectives, and (7) having inservice on alternate ways of using what is available.

Additional recommendations were made for choosing materials and equipment for individual children or for the program. These recommendations may be stated as a series of questions to be asked in the process of selecting an appropriate variety of resources of this kind.

1. Does it fit the age, size, developmental level, and handicap of the child or population?
2. Is it flexible enough to be adapted to individual needs within the parameters stated above?
3. Can it be used in a variety of ways?
4. Is there anything else that covers the same variety and has other advantages?
5. Does it fit the tasks required by the program?
6. Is it real in the context of the child's natural environment?
7. Can it be easily used by children and/or adults?
8. Is it useful for a variety of children?
9. Can it be made more appropriate for the population if it is constructed rather than bought?
10. Can a community resource (shop class, retired carpenter) be used to build it?
11. Is there any other way to get it than through program funds?

12. Is it durable?
13. Can it be easily moved?
14. Can it be stored?

In general, then, participant responses indicated that materials and equipment could either become a source of frustration, or they could be used as an important resource for individualizing. A careful analysis of how they will fit the needs of the population, before buying, will assure that they will constitute such a resource.

Summary: Individualizing the Instructional Program

Within the context of the definition of individualization as a decision-making process, the primary areas of the instructional program, i.e., curriculum, instruction, behavior management, materials and equipment, become areas which may provide a variety of choices from which to choose alternatives in matching needs of the child and capabilities of the program in meeting the goals of instruction. Individualized instruction would then be that which combines the most appropriate alternatives from each area into a coordinated effort and which is flexible enough to assure the changing of alternatives as necessary as the child moves toward his goal.

CHAPTER VIII

THE WRITTEN PLAN

The original impetus behind the research upon which this report is based was the presence of a requirement, attached to federal funding through Title VI-C, that there be in existence a written plan for each child being served through these funds. Since the purpose of such a plan is basically to insure individualized services, the majority of this report has dealt directly with individualization. The purpose of the present chapter will be to examine the role of the written plan in individualization, its purpose, its form and its content, both as reported directly by participants, as drawn from samples of plans which were received from participants, and as the synthesis of these responses from individual programs combined into a general conceptualization.

The Plan as Used by Participants

As reported by participants, a written plan contributes to individualization in several ways. As a pinpointer of information, it explicitly articulates needs and goals. As an organizer of information, it draws together expectations and information on the child as a total entity. As an organizer of process, it guides the actions of implementers by specifying steps to goals and giving instructions for implementation. Finally, it can provide a basis for quality control. It forces the implementer to look at the child as an individual, and helps to assure that services are related to need. It provides a means of communication between personnel, and provides implementation details for persons such as volunteers and paraprofessionals. It serves as a basis for evaluating child progress, teaching strategies and materials, and the program. Ninety-one percent (91%) of the participating programs reported having some kind of written plan for 75 to 100% of the enrolled students. For some programs, this was a change from previous years. Others reported always having had individual plans. In those programs with plans, however, some changes were reported to have occurred as a result of the national emphasis on individualization. These changes were in the form of (1) the presence of plans, i.e., for 100% rather than for some of the children, including students evaluated by the program as well as those actually in the program; (2) more frequent updating; (3) areas covered (usually an expansion to cover such areas as goals and

objectives); (4) more specific and detailed writing, and (5) who was involved in the writing (resulting from the growth of the team approach and role changes within programs).

The time range reported for written plans varied considerably. Table 43 shows percentages of programs having written plans in each of the time categories shown. Some programs reported variable ranges of time.

TABLE 43
PERCENTAGES OF PROGRAMS REPORTING DIFFERENT
TIME RANGES FOR PLANS, BY SETTING OF PROGRAM

Setting	Time Range			
	<1 mo.	>1-6 mo.	>6-12 mo.	≥1 year
	%	%	%	%
Agency (n=11)	-	63.6	9.1	36.4
University (n=3)	-	66.7	-	66.7
Hospital (n=2)	-	50.0	50.0	-
Regular public school campus (n=16)	62.5	6.3	6.3	50.0
Separate public school campus (n=10)	50.0	30.0	-	30.0
State school (n=14)	28.6	50.0	-	50.0
Private day (n=2)	100.0	50.0	-	-
Homebound (n=1)	-	100.0	-	-
Private residential (n=2)	50.0	-	-	50.0

Only 3 settings reported a majority of plans with a time range of one month or less: regular and separate public school campuses, and private day schools. The majority of all plans had time ranges of 1 to 6 months or one year or more. Regular public school programs were the only ones which reported plans for every time range listed.

Other time variations named included (1) five year placement plans plus short term plans, (2) daily plans, and (3) life plans. In addition, several programs mentioned that they had a variety of time ranges, depending upon the child and/or the skill being taught. Any one child, for example, might have a separate plan for each skill area, with a different time range for each. In addition, time range seemed to be a function of what the information was to be used for, and sometimes of who was responsible for writing the plan.

Responsibility for formulating the written plan also varied. In some programs, appraisal teams were responsible. When this occurred, the appraisal report and the written plan were often the same document. Other personnel named as responsible for the written plans were administrator, social worker, outside agency, curriculum specialist, psychologist, diagnostician, instructional supervisor, therapist, teacher, and team. The kinds of teams reported included (1) teacher-aide, (2) teacher-teacher (especially in departmentalized programs), (3) teacher-therapist, (4) teacher-psychologist, (5) parent-speech therapist and (6) nurse-aide.

Writing plans was reported to necessitate certain kinds of information which might or might not be regarded as essential input. These included personal history information such as the nature and etiology of the impairment, medications, medical restrictions, past educational interventions, family history, parent interest and ability, and educational level of parents. In addition, information from appraisals was regarded as essential.

What is finally included in the actual written plan also varies considerably. As reported by participants, these components may generally be divided into history items, appraisal information, content areas, and process areas. History items may include any or all of those regarded as essential for writing the plan, including family, medical, and educational information. Educational history items reported as included were work habits, functional academic levels, and past intervention. Appraisal information may be in the form of test results, the appraisal report, a summary of results, or implications of results.

Content areas reported included developmental and/or academic areas, as well as fine arts, vocational, pre-vocational, and recreational areas. Within the area of developmental content, the following items were named as being included in the child's plan:

Affective Area: attending, self-control, self-awareness, maturity

Psychomotor Area: physical health, gross motor, fine motor, perceptual, sensory, sensory-motor

Cognitive: receptive language, expressive language, thinking skills

Self-help: toileting, dressing, feeding, hygiene, mobility

Academic areas mentioned included all of those found in the normal academic and pre-academic school curriculum as well as specialized skills such as Braille.

Process areas mentioned included either one or any number of the following: goals, objectives, priorities, criterion performances, generalization performances, time lines, activities, scheduling, grouping, instructions to implementer, curriculum, task analysis, method of instruction, reinforcers and reinforcement schedule, evaluation criteria, and behavior management instructions.

In addition to developmental and academic areas, many non-instructional areas were mentioned as being included in each child's plan. For example, goals, objectives, methods, and all of the other subcategories of an

instructional plan might also be written for the medical, therapy, dietary, recreational, and family services to be delivered to this particular child and family.

The plan, then, as reported by participants, might include part or all of the possible content named above, and might address itself to any one or all of several service areas. As a result, the term "written plan" can be taken to mean many things. For example, in a curriculum based, educationally oriented program it might include some identification of the level of the curriculum which the child is on, activities, and evaluation criteria. In a medically oriented program it might include medical and therapeutic goals, assignment of responsibility for achieving these goals, and time lines for each. The possibilities for combinations are numerous.

Problems named in connection with the plan were in the areas of formulation and use. Problems in formulating plans resulted from an over or under-estimation of the child's abilities, difficulty in knowing which goals were most important for which children, not being able to set group goals and individual child goals for the same activity, and not knowing what the federal guidelines entail. Problems with using plans had generally to do with lack of personnel, time, equipment and materials. Another was the time required to keep data. A third was classroom management, i.e., arranging children to make individual sessions possible.

Recommendations for formulating plans were (1) having input from many persons, including all who would implement any part of a plan, (2) including written instructions for use by paraprofessionals and volunteers, (3) regularly re-examining the plans, and (4) using short time-lines. Recommendations for implementing plans were generally in terms of having enough personnel, time, equipment, and materials. Other recommendations included (1) careful data taking, (2) short-term reassessment of plans, (3) assignment of responsibilities within the plan, (4) constant communication between individuals implementing plans with the child, and (5) grouping of children according to individual goals.

A Definition of the Plan

The individually written plan, as it emerges from the variety of contents and forms listed above, covers such a wide array of possibilities that very little is communicated by the term "written plan" except the concept of services to meet a child's needs. Since the implementation of this concept is possible without the presence of a written plan, what unique contribution does a written plan make to individualization?

In order to answer this question, it is necessary to re-examine these alternatives for common categories and generalizations which seem to apply across programs and across services. What emerges from such an examination is that what is included in any written plan is at least in part dependent upon who writes the plan, and whose actions the plan is meant to guide.

In general, the term "written-plan" covers basically three levels of plans, which may or may not be present within the same program. These may be termed (1) the total service plan, (2) the individual service plan, and (3) the implementation plan. These levels basically differ in terms of the comprehensiveness of areas covered, time range, use, and form. While the boundaries between these levels may be somewhat artificial, and while the levels are many times combined, it is also true that a plan at one of these levels does not meet needs at all levels. It appears that programs often confuse these levels and use plans formulated at one level for the purposes of another, resulting in dissatisfaction and in perceptions of the written plan as less than useful.

The total service plan covers all of the services which the program may offer to a child. Usually, this plan is long-range, and establishes goals for each of the service areas. Depending upon the program, it may include diagnostic, medical, family, social, therapeutic, psychological, and/or monetary services. Because it covers all service areas, it is based upon input from appraisals in all areas. It may assign responsibility for each area to a specific individual or department. The total service plan is usually an administrative function, and usually is kept in an administrative file. It is this plan which becomes the basis for the total reassessment and the review of services.

The individual service plan is that which is written for the child by each individual service area. Thus, for each child, there may be individual service plans covering any or all of each of the service areas. For example, there may be a medical plan, an educational plan, and a physical therapy plan. These plans are formulated on the level of the individual service area, and are meant to guide the actions of personnel serving the child in that area. Input into this level of planning would be primarily from a comparable area of appraisal, although other areas would be considered as context. The plan at this level might be shorter term than the total service plan, and would include more specific guidelines for implementation.

Depending upon the primary orientation of the particular program, only one really comprehensive plan in one area might be formulated. If the program is therapeutically oriented, for example, there might be a comprehensive written plan for therapy services, and little written for other areas. An educationally oriented program, as most of the programs for deaf-blind and multiply handicapped children seem to be, would have a written educational plan. This plan might include goals and objectives for a time range of six months or a year (taken from those stated in the educational area on the total services plan), medical and appraisal information relevant to education, a general instructional sequence for each of the goals and objectives, and criterion performance for each.

The third level at which a plan is written is the implementation level. Usually formulated by the individual implementer or team of implementers, the purpose of this plan is to guide day to day interactions with the child. It usually includes short-term objectives plus specific recommendations for meeting these objectives. In the instructional area, for example, the plan

might include objectives, activities, materials, equipment, guidelines for instruction, and grouping and scheduling information. It might also include criterion performance for individual objectives and some system of data taking.

Thus, while certain program variations such as size and staffing patterns may cause variations in forms of written plans, in general they seem to fall into one of three levels, and to be potentially helpful in guiding actions on these same levels. If a definition of "written plan" may apply to any or all of the levels, it becomes necessary to define the plan in such a way that it may cover any or all of these possibilities.

Based on the definition of individualization as a decision making process, and on the wide array of possible alternatives on which to base decisions at every step of the process, the written plan may now be defined as a tool for gathering from these alternatives those which best meet the needs of the child, and for combining and arranging these alternatives in such a way as to guide and focus the thoughts and actions of those who are planning and implementing services, at whatever level they may occur.

Thus, the presence of a plan does not mean that individualization exists. It does mean that, because alternatives have been arranged in a way that meets the identified needs of the child, individualization is now possible. The written plan, then, is a tool for facilitation of individualization.

The plan, as a basis for evaluation, also becomes the basis for insuring that individualization is occurring. In the conceptualization of the written plan as a possible sequence of plans, with each level an elaboration of a subsection of the one above, evaluation at each level, across all implementers and areas, may feed into the level above. Thus, an evaluation of total services may be by means of data from each service area, while service area data may be based on individual implementation plans.

The written plan may thus become a tool for organizing total services, for implementing these services, and for assuring that services are meeting the needs of the child.

Samples of written plans which were received from participants in the study are included in Appendix G. Because original sources for some of these are unknown, no references have been given. Most of these plans are at the instructional level, although a few include other services. These samples should be regarded as sources of ideas for formulating the actual format and content of plans.

CHAPTER IX

PARENTS: PROCESS AND ALTERNATIVES

Child vs. Parent Oriented Participation

Chapter VI explored the alternatives named by participating programs for involvement of parents as facilitators or implementers of the educational program. A distinction was made between involvement for the sake of the child's educational program and involvement primarily for the parent's sake. While Chapter VI dealt with the former topic, the present chapter will address the latter. Within the first category fall all kinds of involvement in which the parent acts in the capacity of controller of the child's home living environment, or of any other part of the instructional environment. Because the educational program for a multiply handicapped child usually includes a preponderance of home living skills, the controller of the home environment assumes importance as an intervener in the education of the child, whether or not this intervention is planned for. This source of intervention is of such central importance to the education of the multiply handicapped child that in the model of individualized services found in Chapter IV, it has been placed on a level adjacent to the central instructional program. (In some programs, of course, this level may become a part of the instructional level, rather than being separate but adjacent, as when the parent or other primary controller of the living environment is used as the major implementer of the child's program. In the same way, the other level adjacent to instruction, i.e., therapy, may in some programs become part of the instructional program.) The second category, parental involvement for the sake of the parent, is found on the model at a level further removed from the instructional level. Although the child's educational program will be affected by what happens to the parent, the purpose of programming at this level is directed at the parent's needs.

A fine distinction between the two categories is, of course, not possible. The division is being made here for the purposes of examining alternatives for parental involvement which are often left untouched or are dealt with only on a cursory basis.

An examination of responses to several questions asked of participating programs will show that parental involvement is primarily based on criteria which result either from consideration of the child's needs, or from policy statements at the national, state, regional, district, or program level.

For example, criteria named for deciding upon the amount and kinds of involvement of parents were child characteristics (e.g., need for consistency), parent characteristics (stability, ability to follow through), educational program characteristics (help needed in carryover), and policy (required number of home visits, required parent approval of placement). Other criteria named were characteristics on which to base decisions not to involve the parent; for example, parental involvement was ruled out if it would adversely affect the child. In addition, kinds of involvement named as being essential were (1) parent involvement in setting goals, (2) observation in the classroom, (3) knowing what the teacher is doing with the child, (4) teaching the child, (5) attending inservice sessions, and (6) attending parent-teacher conferences. In contrast to these guidelines for involvement, which seem to fit the category of involvement for the child's sake, others were oriented more toward the parent. For example, a criterion mentioned for parental involvement which focused on parents' needs was "ability to profit."

Because the presence of a multiply handicapped child in a family can create multiple disturbances in family interactions, and because such disturbances may result in family coping strategies which do not benefit the child or the family, it becomes necessary for intervention to occur with a family as a unit rather than with a child in isolation. Because intervention may bring about changes in the reciprocal interactions within a family, programs for multiply handicapped children therefore have the important responsibility of intervening with both the child and the family.

Thus, given the definition of individualization as a decision making process which utilizes all relevant alternatives or creates new ones, it becomes the program's responsibility to consider the child's family as a source of extremely important alternatives, and to intervene at the parent level, if necessary, in order to create viable alternatives for the child. This statement is based on the assumption that a parent who is disturbed by the presence of a severely handicapped child, and who has developed coping strategies to ease this disturbance, may not be in a position to make changes in interaction patterns which will meet the changing demands of a child who is the recipient of an intervention program. Parents may first need to make changes in themselves. Thus, the need arises to intervene with parents as individuals, rather than only as sources of influence on the child's education.

In summary, any given program may include child based and/or parent based parental involvement. In either case the degree of involvement may range from facilitative to total involvement. While in most programs, kinds of involvement named were child centered and facilitative, others described involvement which was parent centered, at either the facilitative or total involvement level. The remainder of this chapter will be directed toward describing alternatives named by participants which fell into the category of parent-centered involvement.

Parent-Oriented Programming

Programming for parents, as for children, offers alternatives which may differ in purpose, time involved, and methodology used. Given a certain set of alternatives for parent programming, programs may differ in the process of planning involvement for a particular parent. Thus, involvement may be totally required, totally optional, based on an appraisal of parent needs, or any combination of these. While totally required or totally optional participation in alternatives designed for their use may meet some needs of some parents, it does not assure that parents will develop the kind of attitudes and skills which they need to provide adequate parenting for a multiply handicapped child. Parents are as heterogeneous in their needs as their children are, varying for example from non-interested to overzealous, from drop-out to college graduate, from fearful to aggressive.

In meeting these needs, several programs mentioned the possibility of individualized programming for parents. The model in Chapter IV offers a way of thinking through the process, the same kind of decision making process used in delivering individualized services to children. The circular process of diagnosis - evaluation - referral - placement may thus involve an appraisal of parent needs as well as of child needs. (If no needs were apparent, then it would not be necessary to enter the goal setting stage at the second level of family involvement; only the family as an intervener with the child would be considered). Goal setting, planning, implementing, and evaluating would thus follow the same sequence as for the child; resulting individualized programs for parents might thus be totally different, or might overlap considerably, depending upon the particular identified needs of the parents.

At each step of this process, as for children, different alternatives may be available. It should be pointed out that while these same alternatives may be available without the presence of the process, they may not necessarily meet an individual parent's needs.

Identifying Parent Needs

Parent needs may be identified in one or all of several ways, including the use of interviews as well as subjective and objective appraisals similar to those used with children. To the extent that a parent is aware of his own needs, he may choose a "curriculum" to fit. In addition, tests or structured observation can be used to identify deficit areas such as unreasonable expectations, personality crises, or inadequate knowledge of the implications of the child's handicapping condition.

Stating Goals

Parental goals formulated for the sake of the parent fall primarily into three categories, i.e., knowledge, skills, and affect. Knowledge goals mentioned by participating programs were (1) to enable the parent to become educated consumers of programs, services and materials, (2) to enable the

parent to understand the special needs caused by his particular child's handicap, (3) to help the parent to understand the effects that a handicapped child may have on a family, (4) to help the family develop awareness of the presence of, and procedures for, obtaining such special services as medical or welfare, and (5) to help the parent develop knowledge of channels for advocating for further services.

Goals in the skill area, while focused on the parent as a teacher, are also focused on the parent as a parent. That is, coping skills may have many beneficial effects for parents as well as children. Skill areas mentioned as areas of goal setting were (1) observation skills, (2) program planning skills, and (3) implementing skills.

The majority of goals named for parents fell into the affective area. These were (1) assurance of capability as a parent, (2) understanding of feelings toward the child, (3) optimism about ability to anticipate and cope with crises, and (4) substituting realistic thinking for defense mechanisms.

Planning: Content Alternatives

Many alternatives were named as possibilities for meeting parental needs. In the knowledge category, these included such group activities as conferences or speakers directed toward some specific topic of interest such as a comparison of different types of behavior management or a listing of available medical resources in the community. Individual activities named in the knowledge area were the same kinds of topics, but were directed at the situation of the individual parent. For example, a parent of a physically handicapped child might need to know about the availability of specialized equipment for the home.

In the skill category, group activities mentioned were workshops on behavior management, using specific kinds of materials (such as those found in the home), observation skills such as data taking, and therapy skills. Individual activities again were much the same except that they were directed toward the needs of that individual parent.

Group activities mentioned to meet affective goals were parent groups, sibling groups, and family groups, all ranging from rap sessions to intensive therapeutic situations. Individual activities which were mentioned included home visits, regular meetings with personnel such as a social worker, being able to call on the program at any time, and individual therapy.

Implementing

Implementation was said to be affected by variables such as transportation and baby-sitting problems. Many programs listed ways of taking responsibility for this type of physical problem, any of which could interfere with the effectiveness of the parent program. Suggestions made were (1) form

parent carpools or provide bus transportation, (3) let parents take turns babysitting, (4) meet near where most of the families live, (5) schedule activities to meet parental needs, and (6) take the services to them.

Evaluation

Evaluation of the parent program can come from interviews, from rap sessions, from questionnaires, and from controlled measurement of changes in parental behavior and attitudes. Information from this evaluation may be used as feedback into the program for purposes of changing the program, and as part of the evaluation of the total program.

Summary

In summary, parental involvement may be divided into two kinds, one in which goals are directed toward the child, and one in which goals are directed toward the parent.

While child-directed involvement becomes part of the individualized plan for the child, parent-directed involvement may be based upon a sequence of individualized decision-making to meet the needs of the parent. While what is offered in either category may vary along the dimensions of intensity of contact, amount of contact and kind of contact, individualization assures that decisions along these dimensions will be based on an appraisal of parental needs.

CHAPTER X

POST-PROGRAM ALTERNATIVES

While many system components (e.g., diagnosis and evaluation, planning, and implementation) and alternatives for each have been shown to be essential for individualizing services, responsibility does not always terminate with delivery of direct or indirect services to the child. What alternatives are available for students once they have received maximum benefits from the instructional and therapeutic program are also a crucial consideration. As discussed in Chapter IV, the long-range goals of most programs include independence at home and in the community, productive employment, and use of free time. In order for these goals to be realized, provision must be made for extending the program beyond the actual services offered within the program, especially when skills for survival in these settings are not taught, or are taught in settings other than those in which they will ultimately be used.

In this chapter, responsibilities of the program beyond the actual service delivery areas will be examined.

Exit from Program

The decision as to when a child is ready to leave a program may be a function of a multiplicity of factors. Commonly, an age requirement is part of the criteria for admission to, and consequently exit from, a program. However, the simple fact that a child has reached a certain age does not guarantee, particularly with severely handicapped children, that he meets the criteria (other than age) for another program, or is ready for independent or semi-independent functioning. Other alternatives for decisions about program exit include the child's developmental level, other available programs, or the fact that present services are no longer appropriate. Tables 44 and 45 show the percentages of programs in which exit is based on one or more of the above criteria. Since the criteria can be expected to vary according to setting and age of the children, analyses are performed along these dimensions.

TABLE 44

EXIT CRITERIA FOR 50-100% OF THE STUDENTS
BY PROGRAM UPPER AGE LIMIT

Upper Age Limit	Age	Developmental level	Criteria		
			Other programs available	Services no longer appr.	Other*
5 yrs. (n=1)	100.0	-	-	-	-
9 yrs. (n=7)	14.3	14.3	28.6	28.6	14.3
12 yrs. (n=9)	11.1	33.3	22.2	-	-
15 yrs. (n=15)	13.4	-	13.4	13.4	6.7
21 yrs. (n=27)	22.2	7.4	11.1	18.5	-

*Other criteria included death of the child, the child moving out of the program service area, and/or the capability of another program to better meet the child's needs.

As mentioned above, the major criterion on which a child's exit from a program is based is the age of the child. However, the programs whose upper age limit was nine years reported both age and developmental level criteria for exit less frequently than they reported the availability of other programs (29%) and inappropriateness of present services (29%). Inappropriateness of present services was also listed as a major criterion for the programs with upper age limits of 15 years (13%) and 21 years (19%). Developmental level accounted for the largest percentage (33%) of exit decisions for programs whose upper age limit was 12 years. Another large percentage (22%) of exit decisions for programs with a 12-year-old upper age limit was based on developmental level.

Table 45 shows that the largest percentage of agency programs (25%) based exit decisions on developmental level, and 17% of such programs released children when their services were no longer appropriate. Regular public school programs relied on age (26%) and the availability of other programs (21%), while the largest percentage of separate public school programs (25%) used the criterion of inappropriate present services. The age of the child was not the primary criterion for most settings.

A variety of personnel are involved in deciding when a child will leave a program. In general, the more different types of personnel involved, the greater the chances that the decision will be based on: (1) a variety of criteria, (2) evaluations in different areas, and (3) a wider variety of perspectives. For this reason, it seems to be advantageous to have as large a number of personnel involved as possible, in order that as many alternatives as possible be considered. The number of inappropriate placements may thus possibly be reduced by involvement of diverse types of personnel.

TABLE 45

EXIT CRITERIA FOR 50-100% OF STUDENTS
BY SETTING OF PROGRAM

Setting	Criteria				
	Age	Develop- mental level	Other programs available	Services no longer appropriate	Other
Agency (n=12)	8.3	25.0	8.3	16.7	-
University (n=3)	33.3	-	-	-	-
Hospital (n=2)	50.0	50.0	-	50.0	-
Home (n=1)	-	-	-	-	-
Reg. public school (n=19)	26.3	-	21.0	15.8	5.3
Separate public sch.(n=12)	16.7	16.7	8.3	25.0	-
State sch. (n=13)	15.4	-	23.1	-	7.7
Private day(n=2)	-	-	-	50.0	-
Homebound (n=2)	-	50.0	-	-	-
Private residen- tial (n=2)	50.0	-	-	-	-
Other (n=1)	-	-	100.0	-	-

Table 46 shows the percentages of various types of personnel involved in deciding when a child leaves a program, for a variety of program settings. Committees such as Admission, Review, and Dismissal Committees, along with medical personnel, had the least input into exit decisions. Teachers were involved in at least 50 percent of exit decisions in all program settings except home programs (which do not report any exit decisions). Administrators were also involved in the decisions in at least 50 percent of all settings except state schools (47%). Parents were involved in the decisions in at least 46% of the settings except state schools, where parent involvement in general is ordinarily low.

Many problems were reported in relating exit criteria to individual needs. As mentioned before, age may not be an appropriate criterion if the student's skill levels are far below those required for entry into another program. In addition, the availability and appropriateness of other possible placements were frequently criticized. Even a child's first placement was reported as being not necessarily appropriate; a physical disability, for example, might prohibit him from entering another program even if he were ready in other areas. Other problems were that the available programs did not meet the needs of all the enrolled children, and/or all of the needs of any one individual child. Also, programs might simply not be available whose criteria would allow the entry of the child. Thus, a child might "outgrow" one program but still function at too low a level for the next program.

Another problem named was that personnel might be reluctant to release a child, either because of funding and student load requirements or because of their doubts about the next program's capability to meet the child's needs. In addition, parents might not consent to new placements, or may refuse to accept an institutionalized child back once he has exhausted all the services of a program. Other problems included the trauma which a child might experience if the program he was entering was radically different from the previous one, or if his physical characteristics (e.g., the appearance of a Down's Syndrome child) acted to bias the perspective of the receiving personnel.

A number of recommendations were made by the respondents for overcoming some of the problems encountered in relating exit criteria to individual needs. Some of the alternatives mentioned included:

1. Ascertain criteria for admission to other programs well in advance;
2. Explore all placement alternatives, both regular and special;
3. Develop standard, objective, and written exit criteria in advance, with provision for consideration of family and other individual needs;
4. Base the child's next placement on his probable adult placement;
5. Involve prospective program personnel in the exit procedures;
6. Place the child in a program as similar to the present program as possible;
7. Develop a contract to be signed by parents and program personnel, at admission, specifying exit criteria;
8. Educate the family to better prepare them to take the child back or to make a more knowledgeable decision about the next placement;

TABLE 46
PERSONNEL INVOLVED IN EXIT DECISION, BY SETTING OF PROGRAM

Setting	Administrators	Teachers	Appraisal personnel	Admission, Review & Dismissal Comm.	Social services & psychologists	Parents	Medical personnel	Other*
	%	%	%	%	%	%	%	%
Agency (n=12)	66.7	83.3	33.3	8.3	41.7	58.3	25.0	25.0
University (n=4)	100.0	100.0	25.0	--	25.0	50.0	--	50.0
Hospital (n=2)	100.0	100.0	50.0	--	50.0	50.0	--	--
Home	--	--	--	--	--	--	--	--
Reg. pub. school (n=21)	61.9	66.7	23.8	--	38.1	61.9	9.5	28.6
Sep. pub. school (n=11)	72.7	81.8	36.4	18.2	45.5	45.5	18.2	9.1
State school (n=15)	46.7	60.0	13.3	6.7	33.3	13.3	13.3	60.0
Private day (n=2)	50.0	50.0	--	--	--	50.0	--	50.0
Homebound (n=2)	100.0	100.0	--	--	50.0	50.0	--	--
Private residential (n=2)	50.0	--	--	--	50.0	--	--	50.0
Other* (n=1)	100.0	100.0	--	--	100.0	100.0	100.0	--

* Other individuals mentioned included clinical or ward personnel, therapists, consultants, the child, the custodial agency, and teams or committees on the state, regional, county, district, or school level.

9. Educate the public school programs as to the nature of the children and their needs;
10. Prepare the child for the next placement gradually and through pre-move visits, and
11. Insure as much as possible that the child will encounter some immediate success in the next placement.

Follow-up

Following the progress of a child after he leaves a program can benefit both the child and the program. A systematic follow-up procedure was reported to extend the continuum of individualized services available for a child through sequential staff contact, sequential programming, insuring child security, providing quality checks (insuring that the child's needs continue to be met), and by widening the variety of alternatives for normalization. Thus, if a setting were not appropriate, steps could be taken to alter the situation or even change the placement if necessary. Program benefits named included systematic monitoring of the program's effectiveness in meeting needs, systematic monitoring of other programs' ability to meet needs (for use in future placements), providing data for change, and aiding judgments about the types of personnel and programs needed.

Follow-up may thus occur not only after a child exits from a program, but also after he is placed. Monitoring a student at all of these times not only supplies the continuity necessary for a smooth transition from one location to another, but also provides feedback important for individualized programming.

Alternative procedures for follow-up, as reported by sample respondents, were quite varied, ranging from informal home and placement visits, phone calls and letters, to formal outside-program follow-up conducted by regional, county and state offices, and agencies. Regularly scheduled contacts via visits, phone calls, letters and questionnaires were also mentioned. In addition, specific personnel (e.g., social workers, supervising teachers, home teachers) might be assigned the responsibility of keeping track of a child and monitoring his progress.

Services might also continue to be provided to a child after exit as a part of the follow-up system. Continued diagnostic and evaluation services might be offered, as well as inservice for the receiving program. The child might be kept on the previous program's rolls for a specified period of time, and be in the new program on a probationary basis. Another suggestion was to examine random samples of former students on a regular basis in order to test the effectiveness of both old and new programs.

Since provision for follow-up may vary according to the setting of the program, Table 47 shows the percentages of programs which reported some procedure for follow-up, for a variety of settings.

TABLE 47
PROGRAMS REPORTING FOLLOW-UP PROCEDURES
BY SETTING OF PROGRAM

Setting	Follow-up % Yes
Agency (n=9)	88.9
University (n=3)	100.0
Hospital (n=2)	100.0
Home	-
Reg. pub. school campus (n=9)	68.4
Separate pub. school campus (n=9)	66.7
State school (n=13)	53.8
Private day	-
Homebound (n=2)	100.0
Private residential (n=2)	-
Other (n=1)	100.0

All three university and both hospital programs reported some method of follow-up, as did both homebound programs. Eight-nine percent (89%) of agency programs reported follow-up procedures. Sixty-eight percent (68%) of regular public school and sixty-seven percent (67%) of separate public school programs reported monitoring their students after exit, as did fifty-four percent (54%) of state school programs. The home, private day, and private residential programs did not report using follow-up procedures.

Program Evaluation

Without some formal method of program evaluation, it is difficult to determine whether a program has been successful in individualizing services. Day-by-day impressions of program personnel, or even hard data gathered over short time intervals, do little to present a broad perspective of the program as a working system, subject to areas of relative strength and weakness. It is possible to over- or under-estimate a program's ability to meet individual needs unless there is hard data which evaluates the system as a whole. For purposes of accountability, some type of systematic program evaluation is essential.

Many programs reported having developed procedures for evaluating their progress in individualization. Because evaluation is frequently a requirement for funding, Table 48 depicts the percentage of programs which reported having specific methods for program evaluation, in relation to the source of the majority of their funding.

TABLE 48

PROGRAMS UTILIZING PROCEDURES FOR PROGRAM EVALUATION
BY MAJOR SOURCE OF FUNDING

Funding Source	Presence of Procedure
	% Yes
Public (n=25)	52.0
Federal (n=40)	50.0
Private (n=5)	60.0
Tuitions (n=1)	100.0
Other (n=6)	33.3

At least half of the programs funded by all but "other" sources reported having a specific procedure to evaluate their programs. Specific models named included the Tripodi, Fellini, and Epstein Model of Program Evaluation, the systems model, the discrepancy model, and the Management Information System. Other programs reported relying on outside evaluations done by university or other research centers, using reports to BEH, or using previously set up contracts with a funding source (e.g., the state). Alternatives from programs which performed their own evaluations included comparisons with other programs, time analysis logs, job targets for personnel (i.e., personal goal setting), in-house discussions, and parent questionnaires.

A variety of other alternatives were mentioned by the respondents. The majority of these evaluations consisted of the formative data mentioned earlier (see Chapter V), compiled at the end of the evaluation time period to serve as summative data. By examining the progress of individual children, and by comparing individual children to groups of children over, for example, a one year period, it was reported to be possible to estimate the program's effectiveness in many areas. Also, the compilation of all conference reports and staffing results over a specified time period was said to provide similar information.

In general, the areas in which formative data were collected and summarized after a time period can be divided into two categories, child evaluation and program evaluation. Child evaluation includes both comparisons of the child to himself and to groups. Hard and soft data were reported for both child and program evaluation. The alternatives listed by respondents included:

- A. Child Evaluation
 - 1. Child to self
 - a. Hard data
 - 1) Pre-and post-testing
 - 2) Behavioral objectives

- 3) Checklists
- 4) Videotape
- 5) Graphs
- 6) Master charts
- 7) Daily logs
- 8) Anecdotal records
- 9) Yearly rating scales
- 10) Quarterly and annual summaries
- 11) Therapist reports
- 12) Progress reports and report cards
- 13) Re-assessment at regular intervals
- 14) Conference reports
- 15) Parent reports from home
- b. Soft data
 - 1) Parent conferences
 - 2) Daily staffings
- 2. Child to group (all hard data)
 - a. Yearly re-evaluation
 - b. Standardized tests
 - c. Developmental scales
 - d. Systematic research using control groups
- B. Program Evaluation
 - 1. Hard data
 - a. Follow-up data on children (summarized)
 - b. Quarterly reports
 - c. Summations of teacher reports related to goals, achievement, progress, and time required
 - d. Goals set to provide for built-in evaluation
 - 2. Soft data
 - a. All-staff program reviews

In general, the majority of the child evaluation information was reported to be provided by teachers, who were frequently required to track progress on a daily or weekly basis. In contrast, psychologists, social service personnel, and some therapists were often not required to monitor children's progress so closely. As a result, the data obtained were more likely to be instructional data, which is only a portion of the data necessary for comprehensive evaluation. Program or even child evaluations based only on this information may not be accurately descriptive of the program's effectiveness.

Summary

In summary, program respondents reported many alternatives for deciding when a child is ready to leave the program, for personnel involved in this decision, for follow-up procedures, and for program evaluation. Although age was the most commonly mentioned criterion for exit from program, recommendations were made to include criteria based on individual strengths and weaknesses, parent information, and the characteristics of

the receiving program. Alternatives for follow-up procedures included systematic evaluation of the new placement, establishing a probationary period for the child, establishing personnel positions for liaison between present and receiving programs, inservice programs for receiving programs, and gradual transitions for the child from one program to another.

Alternatives for program evaluation included: use of a specific evaluation model, outside evaluations, evaluation procedures built into goal-setting, systematic comparisons with other programs, and compilation of many types of data collected over time periods other than the total evaluation period.

As with the other components of individualization, the more alternatives a program has available to it for exit criteria, follow-up procedures, and evaluation methods, the greater the possibility of meeting the needs of all the enrolled students and of meeting all the needs of any one student.

CHAPTER XI

INDIVIDUALIZATION: PROBLEMS AND RECOMMENDATIONS

In addition to problems, recommendations, and alternatives related to the specific aspects of individualization covered in previous chapters (e.g., diagnosis and evaluation, goal-setting, implementation), respondents were queried as to problems and recommendations related to the individualizing of services in general. Topics such as (1) projected problems with accounting procedures, (2) areas which are essential to individualization and the difficulty associated with individualizing in these areas, and (3) problems associated with individualizing in general can provide a broad picture of the ways in which respondents evaluate the overall impact of the recent impetus toward individualization. These topics are the focus of this chapter.

Accounting Procedures

Part of the responsibility in delivering individualized services to multiply handicapped children involves demonstrating in some fashion that goals are being met, that children are benefiting from services, and that the educational program is truly individualized. In previous chapters, the ways in which this is currently being accomplished were presented and discussed. It was discovered that many programs do not yet have systematic or formal methods for broad program evaluation. However, the recent emphasis on individualization demands such accountability, and many programs are currently in the position of developing such procedures (or will be required to develop them in the very near future). Thus, respondents were asked what special problems with accounting procedures they foresee as a result of the emphasis on individualization. The responses fell into three general categories: physical constraints, personnel requirements, and problems with the form and content of accounting procedures.

Physical Constraints

The most frequently mentioned physical constraints included time and space. It was mentioned that the time spent by staff in accounting activities was difficult to keep track of and budget for. The cost of the time necessary for proper accounting was considered a problem by some respondents. Other time problems included providing the time necessary for paperwork and for updating plans as frequently as required. The major space disadvantage reported was the amount of storage space necessary for keeping detailed files on children. Some respondents mentioned the need for a retrieval system for adequate accounting. A final physical constraint reported was the increased

amount of money necessary in order to individualize, and the consequent necessity of justifying the added expenses to the funding source.

Personnel Requirements

In general, participants mentioned the need for more secretarial and bookkeeping personnel. Teachers in particular may be required to spend a larger percentage of their time on accounting procedures to demonstrate their effectiveness with children. (Teachers mentioned that this already requires a great deal of time, resulting in children remaining unsupervised for substantial periods of time. Where there were shortages of aides, this was reported to be a serious problem. An alternative mentioned was to involve aides in the accounting procedures; however, large numbers of untrained paraprofessionals were currently reportedly unable to perform this function). Another problem mentioned was that proper accounting procedures required cooperation from all in contact with the child's program and, unless there were a formalized system for the necessary staffings, the information gathered might be fragmented or inadequate.

Problems with Form and Content

Present or foreseeable problems mentioned in this area were focused on the inappropriateness of the form of evaluation performed to justify continued funding, support and expansion. Respondents mentioned that some standardized accountability procedures might not be appropriate for all personnel or program aspects involved. In other words, they felt a need for alternatives for all aspects of program evaluation in order to insure as accurate a description of the program system as possible. Also, the evaluation format required by funding sources may produce data which do not accurately reflect the positive accomplishments of the program. For example, a general yearly reassessment done on a child may not indicate that much progress has been made, while careful examination of daily and weekly data might reveal slow, though steady, growth patterns. The more general the evaluation procedure and the greater the time period covered by the procedure, the more likely was the occurrence of this problem. Other participants mentioned that progress in certain difficult-to-measure domains might be masked if the evaluation procedure depended completely upon objective, quantifiable measurements. Thus, a positive change in parent attitudes, for example, might not be recorded in the evaluation procedure unless the attitudinal change were measured by some specific instrument. It was reported that some subjective evaluation was also necessary.

Other respondents reported dissatisfaction with the content of the accountability procedures used. For example, some programs must fill out forms for accountability for more than one level. Frequently, although the forms might differ, the information requested was reported to be much the same. Wasted time and effort were often the result.

Areas Essential for Individualization

In order to be able to deliver maximally individualized services to multiply handicapped children, a program should be able to offer as many alternatives

as possible in the instructional, therapeutic, medical and family areas, as well as making maximum use of resources, both human and material. Respondents to both teacher and administrative questionnaires were asked to rank a number of areas in terms of their importance to individualization. The percentages of respondents to both types of questionnaires who considered an area "essential" (rather than just "important") are shown in Table 49. Since the setting of the program may have an effect on which areas are considered essential, the responses are broken down along this dimension. (Since seven of the programs settings represent four or fewer programs, the results are presented for the four largest program setting categories).

TABLE 49

AREAS ESSENTIAL FOR INDIVIDUALIZATION, AS REPORTED ON TEACHER AND ADMINISTRATIVE QUESTIONNAIRES, BY FOUR LARGEST PROGRAM SETTINGS

Areas	Setting							
	Agency		Reg. pub. school campus		Sep. public school campus		State school	
	Adm. Tch.		Adm. Tch.		Adm. Tch.		Adm. Tch.	
	n=15	n=16	n=26	n=27	n=12	n=10	n=20	n=20
	%	%	%	%	%	%	%	%
Use of								
	53.3	62.5	61.5	63.0	58.3	70.0	65.0	65.0
Diagnosis and evaluation	100.0	93.8	96.2	92.6	100.0	80.0	90.0	85.0
Parent services	66.7	75.0	65.4	51.9	58.3	40.0	60.0	40.0
Instructional program*	93.3	-	100.0	-	83.3	-	95.0	-
Materials	53.3	62.5	65.4	55.6	75.0	60.0	45.0	50.0
Planning of services for indiv. children*	100.0	-	100.0	-	91.7	-	100.0	-
Equipment	40.0	50.0	61.5	51.9	50.0	30.0	35.0	55.0
Goal setting	100.0	93.8	88.5	96.3	91.7	90.0	90.0	95.0
Identification and referral procedures	66.7	81.3	80.8	74.1	66.7	70.0	70.0	85.0
Using resources*	53.3	-	73.1	-	41.7	-	60.0	-
Communication between personnel*	93.3	-	96.2	-	75.0	-	95.0	-
Formulating educational plans**	-	93.8	-	88.9	-	80.0	-	95.0
Other	-	6.3	3.8	11.1	-	10.0	-	10.0

*Choice on administrative questionnaire only

**Choice on teacher questionnaire only

Other areas mentioned as essential included consideration of the composition of the team, low teacher/student ratio, and interested personnel.

In general, the areas most frequently considered to be essential for individualization, by all respondents, were diagnosis and evaluation and goal setting. At least 80 percent of the respondents to the teacher questionnaire felt that formulating educational plans was essential to the delivery of individualized services. Overall, equipment and materials were least frequently considered essential for this purpose. At least 92 percent of administrative questionnaire respondents indicated that planning of services for individual children was essential to individualization, and at least 83 percent of these same respondents felt that the instructional program was essential. From 67 to 85 percent of all respondents considered identification and referral procedures essential, while 40 to 75 percent stressed the importance of parent services. Between 53 and 70 percent of all respondents considered individualization of the use of facilities essential to individualization of services.

Administrators and teachers from the same settings did not always agree on the importance of the various areas. These differences were most pronounced in the areas of parent services (in general considered more essential by administrators) and identification and referral procedures. There were also differences of opinion concerning the importance of equipment and materials to individualization. Across settings, in general, the separate public school programs and state school programs were the least likely to consider any particular area essential to the delivery of individualized services.

Areas Difficult to Individualize

It might be expected that some of the areas mentioned above would be more difficult to individualize than others. For example, the use of facilities would logically probably be harder to individualize than would setting goals. Since the age of the population being served would to a large extent determine the difficulty of individualizing certain areas, Table 50 shows the percentages of respondents to both types of questionnaires who considered the area extremely or moderately difficult to individualize, by the upper age limit of the program.

Areas listed in addition to those on the table were instruction and the composition of the team. In general, the most difficult to individualize were parent services and the use of facilities. The least difficult areas reported were goal setting, diagnosis and evaluation procedures, and the educational program (administrative questionnaire only). Formulating educational plans, as reported by teacher questionnaire respondents, was also reportedly one of the least difficult areas to individualize.

Some areas were reported by the programs with older students to be more difficult to individualize. These included: (1) parent services, (2) materials (as reported by teachers), (3) planning services to individual children

TABLE 50

AREAS MODERATELY OR EXTREMELY DIFFICULT TO INDIVIDUALIZE,
BY UPPER AGE LIMIT OF PROGRAM

Areas	Upper Age limit									
	5 years		9 year		12 years		15 years		21 years	
	Adm. Tch.		Adm. Tch.		Adm. Tch.		Adm. Tch.		Adm. Tch.	
	n=1	n=1	n=9	n=9	n=19	n=21	n=17	n=14	n=33	n=29
	%	%	%	%	%	%	%	%	%	%
Use of facilities	-	-	77.8	66.7	57.9	66.7	70.6	85.8	60.7	65.5
Diagnosis and evaluation procedures	-	100.0	44.4	33.3	36.9	38.1	41.2	28.6	30.3	41.4
Parent services	100.0	-	77.8	77.8	63.2	57.1	82.3	78.6	81.9	82.8
Instructional program*	-	-	33.3	-	26.3	-	47.1	-	39.4	-
Materials	-	-	55.5	44.4	42.1	28.6	41.2	78.6	57.6	51.7
Planning of services for individual children*	-	-	44.4	-	52.7	-	70.6	-	60.7	-
Goal setting	-	-	33.3	33.3	31.6	33.3	35.3	28.6	51.5	31.0
Identification and referral procedures	-	100.0	66.7	55.5	47.4	61.9	64.7	50.0	57.6	44.8
Using resources	-	-	44.4	-	68.4	-	52.9	-	63.7	-
Formulating educational plans**	-	-	-	33.3	-	42.9	-	35.7	-	48.3
Equipment	-	-	22.2	66.7	57.9	38.1	64.7	85.7	57.6	65.5
Other	-	-	-	-	-	4.8	-	7.1	-	6.8

* Choice not on teacher questionnaire.

** Choice not on administrative questionnaire.

(administrative questionnaire only), (4) goal setting (particularly for programs with an upper age limit of 21 years), and (5) equipment (especially for programs enrolling students up to age 15). The general conclusion to be reached is that it was reportedly more difficult to individualize for older students.

Teachers and administrators did not always agree upon the amount of difficulty of individualizing in certain areas. These differences were most noticeable among the programs enrolling older students (upper age limits of 12, 15, and 21 years), possibly due in part to the fact that there were more respondents from these types of programs than from programs with upper age limits of 5 or 9. Nevertheless, in general, administrators reported more often than did teachers that identification and referral procedures were difficult to individualize; equipment was reported by teachers to be more difficult. With the exception of programs whose upper age limit was 15 years, administrators considered individualizing materials more difficult than did teachers. Teachers felt that using facilities in individualization was more difficult than did administrators, except in programs with an upper age limit of 9 years.

The implications from these results are numerous. First, since parent services (both direct and indirect) are a crucial component of a truly individualized system of services to the multiply handicapped, and since so many respondents reported that this area was moderately or extremely difficult to individualize, increased effort in this direction (time, personnel, funding) seems to be essential. If the parents are not active participants in the education of their children, or if the services offered to parents do not meet their individual needs, it stands to reason that their children will receive substantially less than maximum benefit from any program. Possible alternatives mentioned to remedy this deficit included the establishment of home/school liaison personnel, home teachers, provision for transportation and babysitting services so that parents would have more opportunity to attend meetings and decision-making sessions, regular inservices for skill development for the parents (to increase feelings of adequacy and interest in educating their children), and individual and group counseling.

Second, the use of facilities as an alternative in individualizing must become more accessible, flexible, and manipulable by program personnel. Individuals bound by physical or structural limitations are immeasurably hindered in their delivery of individualized services. At times this was reported to be the result of the widely varying nature of student's needs. For example, it was reported to be difficult to provide simultaneously a dynamic environment for one child and a static environment for another child, particularly if the classroom were large or open. The use of room dividers, the division of a large room into small rooms and other similar space arrangements were said to in part alleviate this problem. Students for whom practice in living skills in the community is essential were considered to be considerably inhibited if the location of the facility prohibited such contact. Confinement to a classroom was reported to be limiting for children of all ages. Ideally, buildings should be constructed to incorporate the special needs of the students. Where this is not possible, or where the nature of the student population varies over time, efforts should be made to use existing facilities creatively and cooperatively.

Third, identification and referral procedures, which necessarily must be standardized to some extent, must also provide alternatives as to time, location and kind of contact. At least one program provided a screener/diagnostician at a local pediatrician's office whose function it was to assume some of the responsibility for identification and referral. Toll free phone numbers might be a help to families in rural areas to whom the cost of long distance phone calls might be prohibitive. Itinerant evaluation teams were another alternative. Regional Resource Centers, which assume responsibility for assisting in the identification and evaluation of complex, rare, and inexplicable cases, can be of assistance in this area.

In short, while many programs appear to possess at least the minimal components for delivering a system of truly individualized services, there seems to be a breakdown in the use of these components for individualization. Such breakdowns were not necessarily reported to be the result of understaffing or insufficient funding. Increased intra-staff communication, more team planning and discussion, and flexible use of resources could aid in making more individualized use of existing resources.

Problems Encountered in Individualization

The delivery of individualized services makes demands on any program. Extra funding is almost always necessary to pay for the increase in staff necessary to lower the adult/child ratio, to hire extra support personnel to extend services, to provide more (and more varied) materials and equipment, to cover the cost of necessary building modifications, and to pay for extra bookkeeping and accounting time. Even given extra funding, however, the adult/child ratio may continue to be high and facilities may continue to be inappropriate. There may be a shortage of time for planning and for regular communication among staff, particularly when the initial emphasis on individualization is interpreted as meaning that each adult must spend more time with each child. It may not be realized by a program in the early stages of individualization that planning, conference, and record-keeping time must be systematically provided for on a daily basis, and that direct instruction is not always necessarily the most essential part of the program. Communication problems may result, not only from differences in personality, philosophy, and teaching style, but because systematic communication is not built into the program. It also may be difficult to individualize a program if the personnel lack skill in individualizing, or are unsure of what areas individualization covers.

Tables 51 and 52 show the percentages of respondents to the administrative questionnaire reporting problems as serious or somewhat serious in the areas covered. Since problems can be expected to vary from one setting to another, as well as among programs of varying ages, the data are analyzed along both dimensions.

Problems listed in addition to those on the table include (1) program location (particularly rural where necessary services such as vocational placements may be unavailable, (2) locations which prohibit mobilization of services, (3) time lag between emergent needs and funding, (4) consultants' lack of knowledge of

the deaf blind or multiply handicapped, heterogeneous program populations, and inadequate or inappropriate receiving programs for existing children.

TABLE 51
PROBLEM AREAS RESULTING FROM INDIVIDUALIZATION,
BY FOUR LARGEST PROGRAM SETTINGS

Problem Areas	Setting			
	Agency	Reg. pub. school campus	Sep. pub.school campus	State school
	n=15	n=26	n=11	n=19
	%	%	%	%
Adult/child ratio				
too high	26.7	19.2	54.6	57.9
Lack of skill in				
individualizing	13.3	15.4	45.5	42.1
Unclear about areas				
covered by individ.	20.0	19.2	36.4	31.6
Budget and financial				
problems	40.0	46.1	63.7	57.9
Lack of appropriate				
facilities	46.6	34.6	45.5	36.9
Lack of materials				
and equipment	26.7	23.0	9.1	36.8
Lack of planning time	46.7	26.9	63.7	42.1
Communication problems	26.7	40.7	63.7	52.7
Scheduling difficulties	26.7	23	9.1	42.1
Other	6.7	11.5	9.1	-

Lack of skill in individualization was reportedly much less of a problem in agency and regular public school programs than it was in state school and separate public school campus programs. Communication problems appeared to be the least severe in agency programs (27%), and the most severe in separate-public school campus programs (64%). However, programs in this same setting reported the least trouble with equipment and materials (9%). Lack of planning time was reportedly most serious in separate public school programs (64%), while these programs reported the smallest percentage of scheduling difficulties (9%). Relatively low percentages (19 to 36%) of all respondents reported that knowledge of what areas individualization covers was a serious problem. Inappropriate facilities were a problem in 35 to 47 percent of all programs. In general, the problems listed were the most serious in separate public school and state school programs, and least serious in regular public school programs.

TABLE 52

PROBLEM AREAS IN INDIVIDUALIZATION BY AGE OF PROGRAM

Problem Areas	Age of Program			
	<1 yr.	1-3 yrs.	3-6 yrs.	>6 yrs.
	n=12 %	n=34 %	n=17 %	n=14 %
Adult/child ratio too high	25.0	38.2	47.1	28.5
Lack of skill in individualizing	33.3	23.5	23.5	35.7
Unclear about areas covered by individualization	25.0	20.6	23.5	42.9
Budget and financial problems	50.0	52.9	47.1	57.2
Lack of appropriate facilities	25.0	44.1	29.4	35.7
Lack of equipment and materials	41.7	20.6	17.6	35.7
Lack of planning time	66.7	29.4	35.3	50.0
Communication problems	50.0	32.4	47.1	50.0
Scheduling difficulties	25.0	26.5	23.5	28.5
Other	-	5.8	11.8	-

Budget and financial problems were reported as serious or somewhat serious, regardless of the age of the program. Programs less than one year of age also reported substantial difficulty in the areas of planning time (67%), equipment and materials (42%), and communication (50%).

The severity of most problems was reportedly less for intermediate age programs (1-3 years, 3-6 years) than for very new (less than 1 year) or old (>6 years) programs. This could be due to a number of factors: for the newest programs, it is probably a result of the novelty of the program plus the lack of experience in implementing individualized services; for the oldest programs, it could be due to the fact that change becomes harder to implement once a program has been in operation for a number of years.

Scheduling difficulties, in general, were the least serious problem; no more than 36 percent of programs in any age category reported either serious or somewhat serious problems due to lack of skill in individualizing. Communication problems plagued at least 47 percent of all programs except those 1 to 3 years of age. An adult/child ratio which is too high was more of a problem for the intermediate age programs than for the very new or very old programs.

Alternatives named for overcoming these problems were similar to those for the areas which were difficult to individualize. Increased funding could do much (if properly utilized) toward improving the adequacy of the facilities. Teacher and other personnel input into the use of facilities seems imperative, since these individuals are the most likely to be aware of the limitations and possibilities involved. It is possible that regularly scheduled planning time and conferences could do much to decrease problems in these areas. Periodic formal evaluation and subsequent program modification undoubtedly could prevent problems from worsening over the years. Finally, concerted effort on the part of all personnel toward making system components work for them (rather than accepting the limitations) is essential, as is close cooperation among all program staff.

Summary

In summary, this chapter reviewed (1) accounting problems anticipated as a result of individualization, (2) areas considered essential to individualization, (3) areas which are currently difficult to individualize, and (4) problems encountered with individualization in general. Foreseeable accounting problems such as time and money required, increased needs for personnel, and inadequacies with the form or content of accounting procedures were mentioned. Among the areas considered most essential for individualization were reported goal setting and diagnosis and evaluation procedures, although almost every area listed was considered essential by a majority of the respondents. However, teachers and administrators did not always agree on the relative importance of the various areas. The most difficult areas to individualize were reportedly parent services and the use of facilities. Again, teachers and administrators did not always agree on the difficulty of individualizing certain areas. The major problems encountered as a result of individualization were budget and financial difficulties and communication problems. However, these problems varied considerably depending upon the setting and the age of the program. Recommendations for overcoming problems and for easing the difficulty associated with individualizing certain areas were made.

CHAPTER XII

SUMMARY

A state-of-the-art report, by describing the range of different alternatives for meeting a given problem as it exists in the field, has certain advantages over other types of literature. First, it covers a much wider range of ideas, philosophies, and alternatives than would be possible to gather from a more limited study. Second, a theoretical framework for meeting particular problems may be conceptualized from this range of possibilities, thus insuring a definition flexible enough to encompass the variety. Finally, by addressing itself to actual practices in the field, the state-of-the-art is more assured of being realistic and relevant to practitioners in the field. Suggestions for using the results of this study in individualizing services for multiply handicapped children are thus based directly on the premise that what is reported reflects a fairly representative picture of the variety of practices which are being used in approaching this problem than would be possible for any one practitioner or program to know from first hand experience.

The following recommendations are addressed toward ways in which individual programs might use this report in appraising or accelerating their own progress in individualization:

1. As a conceptual basis for thinking about the process of individualization;
2. As a stimulation in thinking about questions such as "Are we addressing ourselves to all areas which are our responsibility?" "Are we ignoring possibilities for areas of service?";
3. As a resource for alternatives which are being used by other programs serving similar populations;
4. As a way of organizing delivery of individualized services, and
5. As a resource for areas to appraise in evaluating individualization of services.

Thus, while the instructional program is the central concern of most educational organizations which are in the business of delivering services to children, and while with the non-handicapped child this instructional program may legitimately be the only concern, with the deaf-blind or other multiply handicapped child responsibility cannot be limited to this area. Instead, it must be expanded to meet many needs, including family, medical, and therapeutic.

In defining individualization within the context of this broadened concept of the educational program, this report has focused upon the concept of individualization as a process of decision making, rather than as any given set of components. A model has been presented which ties together the sequence of individualization with the breadth of service areas which may become the responsibility of the educational program. Within each of the major decision points of the process, alternatives listed by participating program respondents have been combined in an effort to present a comprehensive picture of the range of possibilities which can be available to any program. The written plan, then, may be defined as a tool for bringing together in an organized fashion the various alternatives which can be constructed to meet the needs of each individual child.

APPENDIX A: PARTICIPATING PROGRAMS

PARTICIPATING PROGRAMS

Model Demonstration Center for
the Severely Handicapped
P.O. Box 2592
University of Alabama
Tuscaloosa, Alabama 35486

State Vision/Hearing Impaired Program
216 E. 8th
Anchorage, Alaska 99503

SEMBCS-Multi-Handicapped
2450 S. Wabash
Denver, Colorado 80110

Jefferson Co. Public Schools
Pupil Personnel Services
809 Quail St.
Lakewood, Colorado 80215

Park Elementary School
Windsor, Colorado

Coleytown Developmental Center
65 Easton Rd.
Westport, Conn. 06880

Deaf-Blind Project
Dept. of Public Instruction
Townsend Bldg.
Dover, Del. 19401

Program for Exceptional Children
1000 Barber St.
Athens, Georgia 30601

Georgia Center for Multi-Handicapped
Robert Shaw Center
2040 Ridgewood Dr. N.E.
Atlanta, Georgia 30307

Richmond County Board of Education
3146 Lake Forest Dr.
Augusta, Georgia

N.E. Georgia Special Education Unit
Box 546
Cleveland, Georgia 30528

Sough Georgia Development Center
Box 754
Hazlehurst, Georgia 31539

Ochlocknee Multi-Handicapped Program
Children's Center
P.O. Box 110-A
Ochlocknee, Georgia 31773

Georgia Center for the Multihandicapped
385 Glendale Rd
Scottdale, Georgia 30079

BFHS Shared Services
Oak Hill Center
Rt. 2
Toccoa, Georgia 30577

Early Intervention Program
2195 Ironwood Court
Dept. of Health and Welfare
Coeur d'Alene, Idaho 83814

Idaho State School for the Deaf and
Blind
14th and Main
Gooding, Idaho 83330

Child Development Centers
P.O. Box 994
Lewiston, Idaho 83501

Developmental Services Center
302 W. Church
Champaign, Ill. 61820

Chicago Deaf-Blind Program
Skinner School
111 S. Throop St.
Chicago, Ill. 60607

Western Avenue School
1500 Western Ave.
Geneva, Ill. 60134

The Hope School
Deaf-Blind Program
50 Hazel Lane
Springfield, Ill. 62703

Stone Belt Center
2815 E. 10th St.
Bloomington, Ind. 47401

Deaf-Blind Project
5935 Hohman Ave.
Administration Center
Hammond, Indiana 46320

Silvercrest DCD Facility
P.O. Box 500
New Albany, Indiana 47150

Deaf-Blind Program
Logan Center
1235 N. Eddy St.
South Bend, Indiana 46617

Glenwood State Hospital School
Developmental Program
Glenwood, Iowa 51534

Deaf-Blind Program
Woodward State Hospital School
Woodward, Iowa 50276

Project M.E.S.H.
320 N. 295h St.
Parsons, Kansas 67357

Special Services
Shawnee Mission Public Schools
5001 W. 95th St.
Shawnee Mission, Kansas 66207

Personnel Training Program
Kansas Neurological Institute
3107 W. 21st St.
Topeka, Kansas 66604

Child Evaluation Center
Deaf-Blind Program
Child Evaluation Center
540 S. Preston
Louisville, Ky. 40220

Deaf-Blind Program
Kentucky School for the Blind
P.O. Box 6005
Louisville, Ky. 40206

Deaf-Blind Program
Paul L. Dunbar Elementary School
9330 Forshey St.
New Orleans, La. 70118

Pinecrest State School
P.O. Box 191
Pineville, La. 71360

Mid State U.C.P.
125 State St.
Augusta, Maine

Institute for the Study of Mental
Retardation and Related Disabilities
University of Michigan
Ann Arbor, Michigan 48104

John Tenny Center
13220 Greenfield
Detroit, Michigan 48227

Deaf-Blind Program
Marquette School
480 Bennett St.
Muskegon, Michigan 49442

Preschool Handicapped Program
2075 Lee St., S.W.
Wyoming, Michigan 49509

Lincoln Elementary School
Special Education, Rm. 34
Alexandria, Minn. 56308

Deaf-Blind Program
Brainerd State Hospital
#. Oak St.
Box 349
Brainerd, Minn. 56401

Compensatory Transitional Education
Program
Minnesota Braille and Sight Saving
School
Box 68
Faribault, Minn. 55021

Mississippi Deaf-Blind Program
Ellisville State School
Ellisville, Miss. 39437

Deaf-Blind Program
Higginsville State School
Box 522
Higginsville, Mo. 64037

Deaf-Blind Program
Missouri School for the Blind
3815 Magnolia Ave.
St. Louis, Mo. 63110

School for Multi-Handicapped
Montana Center for Handicapped Children
Eastern Montana College
Billings, Montana 59101

New Hampshire Deaf-Blind Program
Amoskeag Center for Educational
Services
4 Elm St.
Manchester, N.H. 03103

New Jersey Commission for the Blind
and Visually Impaired
1100 Raymond Blvd.
Newark, N.J. 07102

Education Department
Woodbridge State School
Rahway Ave.
Woodbridge, N.J. 07067

Esperanza Para Nuestros Ninos
P.O. Box 12212
1820 Valdora S.W.
Albuquerque, New Mexico 87105

Deaf-Blind Program
New York State School for the Blind
Richmond Avenue
Batavia, New York 14020

Rubella Project
Pediatric Services
Roosevelt Hospital
428 W. 59th St.
New York, N.Y. 10019

Deaf-Blind Program
Willowbrook Developmental Center
2760 Victory Blvd.
Staten Island, N.Y. 10314

Deaf-Blind Program
Developmental Learning Unit
O'Berry Center
Box 247
Goldsboro, N.C. 27530

Deaf-Blind Program
Caswell Center
Box 909
Kinston, N.C. 28501

Deaf-Blind Residential Unit
Western Carolina Center
Enola Rd.
Morganton, N.C. 28655

Deaf-Blind Project
Hilltop Home
3600 New Bern Ave.
Raleigh, N.C. 27610

Tammy Lynn Center
301 Cardinal Gibbons Dr.
Raleigh, N.C. 27605

Deaf-Blind Program
Grafton State School
Box 505
Grafton, N.D. 58237

Deaf-Blind Class
Schiel School
2821 Vine St.
Cincinnati, Ohio 45219

Deaf-Blind Program
U.S. Grant School
4309 Arcadia
Dayton, Ohio 45420

Program for Exceptional Children
Toledo Board of Education
Manhattan and Elm Sts.
Toledo, Ohio 43608

Deaf-Blind Project
Children's Convalescent Center, Inc.
Box 888
Bethany, Okla. 73008

Oklahoma Cerebral Palsy Center
P.O. Box CC
Norman, Okla. 73069

The Little Lighthouse
202 S. Xanthus
Tulsa, Oklahoma 74104

Program for Visually Handicapped
Child Service Center
220 N.E. Beech St.
Portland, Oregon 97212

Deaf-Blind Project
Oregon State School for the Deaf
999 Locust N.E.
Salem, Oregon

Deaf-Blind Project
Western Pennsylvania School for
Blind Children
201 N. Bellefield St.
Pittsburgh, Penn. 15213

Project P.U.S.H.
Meeting Street School
333 Grotto Ave.
Providence, R.I.

Deaf-Blind Unit
Coastal Center
Ladson, S.C. 29456

Deaf-Blind Program
South Dakota School for the
Visually Handicapped
423 17th Ave. S.E.
Aberdeen, S.D. 57401

Multisensory Handicapped Program
Box 399
Arlington, Tenn. 38104

Multiple Handicap Project
Box 158
Peabody College
Nashville, Tenn. 37203

West Texas Rehabilitation Center
4601 Hartford
Abilene, Texas

Deaf-Blind Project
Travis State School
P.O. Box 430
Austin, Texas 78767

St. John's Developmental Center
910 E. St. John's
Austin, Texas 78752

Deaf-Blind Project
Callier Center for Communication
Disorders
1966 Inwood Rd.
Dallas, Texas 75235

Dallas County Assn. for the Blind
P.O. Box 64420
Dallas, Texas 75206

Deaf-Blind Program
Region XIX Education Service Center
6611 Boeing Dr.
P.O. Box 10716
El Paso, Texas 79997

Child Study Center
1300 W. Lancaster
Ft. Worth, Texas 76102

Deaf-Blind Project
Fort Worth ISD
5533 Whitman
Fort Worth, Texas 78133

Center for Multiple Handicapped
Children
3602 W. Dallas
Houston, Texas 77019

Deaf-Blind Project
Richmond State School
2100 Preston
Richmond, Texas 77469

Deaf-Blind Program
Harlandale ISD
102 Genevieve St.
San Antonio, Texas 78285

Ann Self Training Center
Rt. 1, Box 58-S
Helper, Utah 84526

Con Amore Training Center
Box 88
Myton, Utah 84052

Ogden-Weber Education Center
1100 Orchard Ave.
Ogden, Utah 84404

Garfield School
1838 S. 1500 E.
Salt Lake City, Utah 84105

Lincolnia Center
4710 N. Chambliss St.
Alexandria, Virginia 22312

Arlington Public Schools
1426 N. Quincy St.
Arlington, Virginia 22207

Ashlawn Elementary School
5950 N. 8th St.
Arlington, Virginia 22205

National Children's Center
6200 2nd St. N.W.
Washington, D.C. 20010

Progress Center, Inc.
Deaf-Blind Unit
839 15th Ave.
Longview, Washington 98632

Hearing Impaired-Multihandicapped
Program
Experimental Education Unit
University of Washington
Seattle, Washington 98195

Fircrest Schoolhouse
15230 15th Ave., N.E.
Seattle, Washington 98155

Highline Public Schools
Administrative and Education
Resources Center
15675 Ambaum Blve., S.W.
Seattle, Washington 98177

Multi-Handicapped Project
Administrative Special Services
Shelton S.D. 309
Reed Bldg.
7th and Alder
Shelton, Washington 98584

Special Education Dept.
Central Kitsap #401
P.O. Box 6
Silverdale, Washington 98383

Special Education
South Bend Schools
500 E. 1st
South Bend, Washington 98586

Deaf-Blind Project
Oshkosh Area Public Schools
Lincoln Elementary School
608 Algoma Blvd.
Oshkosh, Wisc. 54901

Special Education
Sheboygan Public Schools
830 Virginia Va.
Sheboygan, Wisc. 53081

Special Programs
Laramie Schools
1948 Grand Ave.
Laramie, Wyoming 82070

APPENDIX B: SITE VISITS

SITE VISITS

Deaf-Blind Program
Talladega Institute for
Deaf and Blind
Talladega, Alabama 35160

Technical Facility
Talladega Institute for
Deaf and Blind
Talladega, Alabama 35160

Model Program for Multi-Handicapped
University of Alabama
P.O. Box 2846
Tuscaloosa, Alabama 35486

University of Alabama
Deaf-Blind Program
Department of Special Education
Tuscaloosa, Alabama, 35486

North Hills Exceptional Children's
School
207 Rainbow Lane
Sherwood, North Little Rock,
Arkansas

Diagnostic School for Neurologically
Handicapped Children
4339 State University Drive
Los Angeles, California 90032

Pilot Classroom: Project for Severely
Emotionally Disturbed Children
Macy School
2301 W. Russell St.
La Habra, California 90631

Neuropsychiatric Institute UCLA
Mental Retardation and Child
Psychiatry Program
760 Westwood Plaza
Los Angeles, California 90024

Infant Studies Project
2167 Rehabilitation Center
1000 Veteran Avenue
University of California
Los Angeles, California 90024

John Tracy Clinic
806 W. Adams Blvd.
Los Angeles, California 90007

Developmental Program
Sophia Salvin School
Los Angeles Unified Schools
Los Angeles, California

East San Gabriel School for
Multi-handicapped
360 W. Mauna Loa Avenue
Glendora, California 91740

Telecommunications for Severely
Handicapped Children and Youth
University of Kentucky Research
Foundation
305 Kinhead Hall East Wing
University Station
Lexington, Kentucky 40506

Child Evaluation Center
University of Louisville
Department of Pediatrics, School
of Medicine
540 S. Preston St.
Louisville, Kentucky 40202

Deaf-Blind Program
Kentucky School for the Blind
P.O. Box 6005
Louisville, Kentucky 40206

Early Childhood Program
Clinical Services
University of Oregon
Eugene, Oregon 97403

Multiple Handicap Project
Box 158
Peabody College
Nashville, Tennessee 37203

Deaf-Blind Program
Texas State School for the Blind:
Annex
3710 Cedar St.
Austin, Texas 78705

Deaf-Blind Program
Travis State School
Webberville Road
Austin, Texas

Infant-Parent Program
1229 E. 9th
Austin, Texas 78702

St. John's Developmental Center
910 E. St. Johns
Austin, Texas 78757

Deaf-Blind Program
Ada Wilson Hospital
3511 S. Alameda
Corpus Christi, Texas 78411

Deaf-Blind Program and Multi-handicapped
Programs
Callier Center for Communication Disorders
1966 Inwood Road
Dallas, Texas 75235

Center for Multiple Handicapped
Children
3602 W. Dallas
Houston, Texas 77019

Houston Speech and Hearing Center
Division of Communicative
Disorders
Graduate School of Biomedical Sciences
University of Texas at Houston
1343 Moursund Avenue
Houston, Texas 77025

Deaf-Blind Program
Richmond State School
2100 Preston St.
Richmond, Texas 77469

Deaf-Blind Program
Harlandale Independent School
District
102 Genevieve St.
San Antonio, Texas 78285

Sensory-Motor Training Program
Deaf-Blind Program
Utah State Training School
American Fork, Utah 84003

Granite School Rehabilitation
Center
350 E. 3605 South
Salt Lake City, Utah

Hartviksen School
350 E. 3600 South
Salt Lake City, Utah

Experimental Education Unit
University of Washington
Seattle, Washington 98195

APPENDIX C: B.E.H. PROGRAMS FOR SEVERELY
HANDICAPPED CHILDREN AND YOUTH

PROGRAMS FOR SEVERELY HANDICAPPED
CHILDREN AND YOUTH

Ruby Luna, Project Director
Programs for Severely Handicapped
Children and Youth
Esperanza Para Nuestros Ninos
P. O. Box 12212
Valdora S.W.
Albuquerque, New Mexico 87105

Dr. Lawrence J. Turton, Project Director
Programs for Severely Handicapped
Children and Youth
The Regents of the University of
Michigan
University of Michigan
260 Research Administration Building
Ann Arbor, Michigan 48105

Dr. Don Ashurst, Project Director
Programs for Severely Handicapped
Children and Youth
California State Department of
Education
721 Capitol Mall
Sacramento, California 95814

Dr. Henry J. Schroeder, Project Director
Programs for Severely Handicapped
Children and Youth
Indiana University Foundation
P. O. Box F
Bloomington, Indiana 47401

Dr. Loretta Holder, Project Director
Programs for Severely Handicapped Children
University of Alabama
P. O. Box 2846
Tuscaloosa, Alabama 35486

Dr. Tim Crowner, Project Director
Programs for Severely Handicapped
Children and Youth
Madison Public Schools, Jt. Dist. 8
545 W. Dayton St.
Madison, Wisconsin 53703

Dr. Charles Spellman, Project
Director
Programs for Severely Handicapped
Children and Youth
Research Administration
University of Kansas
Lawrence, Kansas 06045

Dr. Victor L. Baldwin, Project
Director
Programs for Severely Handicapped
Children and Youth
Teaching Research Division
Oregon State Systems of Higher
Education
Monmouth, Oregon 97361

Dr. Barbara Fazzano, Project
Director
Easter Seal Society for Crippled
Children and Adults of Rhode
Island, Inc.
333 Grotto Ave.
Providence, Rhode Island 02906

Dr. Norris G. Haring, Project
Director
Programs for Severely Handicapped
Children and Youth
University of Washington
201 Administration Bldg.
Seattle, Washington 98195

Task Force on Severely Handicapped Children and Youth, R. Paul Thompson, Chairman
Bureau of Education for the Handicapped
7th and D St., S.W.
Washington, D.C. 20202

APPENDIX D: APPRAISAL ALTERNATIVES

APPRAISAL ALTERNATIVES

General Assessment

Adaptive Behavior Scales

K. Nihira et al.
American Assn. on Mental
Deficiency
5201 Connecticut Ave. N.W.
Washington, D.C. 20015

Alpern-Boll Developmental Profile

Gerald Alpern & Thomas Boll
Psychological Development Publ.
Indianapolis, Indiana

Assessment in Infancy: Ordinal

Scales of Psychological Development
Ina C. Uzgiris & J. McVicker Hunt
University of Illinois Press
Urbana, Illinois

Bayley Scales of Infant Development

Nancy Bayley
The Psychological Corporation
304 E. 45th St.
New York, N.Y. 10017

Behavioral Characteristics Progression

Santa Cruz County Office of Educ.
Vort Corporation
Publications Dept. D
P. O. Box 11132
Palo Alto, California 94306

Boehm Test of Basic Concepts

Ann E. Boehm
Psychological Corporation
304 E. 45th St.
New York, N.Y. 10017

Boyd Developmental Scale

(No further information available)

Brainard Occupational Preference Inventory

Paul Brainard, et al.
Psychological Corporation
304 E. 45th St.
New York, N.Y. 10017

Callier-Azusa Scale

Callier Center for Communication
Disorders
1966 Inwood Rd.
Dallas, Texas 75235

Camelot Behavior Checklist

Edmark Associates
13249 Northup Way
Bellevue, Washington 98005

Cattell Infant Intelligence Scale

P. Cattell
Psychological Corporation
304 E. 45th St.
New York, N.Y. 10017

Cerebral Palsy Assessment Chart (UCP Checklist)

Included in A Developmental
Approach to Casefinding
Una Haynes
U. S. Government Printing
Office
Washington, D.C. 20402

DASIE

California State Dept. of Educ.
Sacramento, California 95814

Denver Developmental Screening Test

W. Frankenburg, et al.
Ladoca Project & Publ. Found.
E. 51st & Lincoln St.
Denver, Colorado 80216

Developmental Evaluation Checklist

Pediatric Services
Roosevelt Hospital
428 W. 59th St.
New York, N.Y. 10019

- Developmental Potential of Preschool Children: An Evaluation of Intellectual, Sensory, and Emotional Functioning
E. Haeussermann
Grune & Stratton
381 Park Ave. South
New York, N.Y. 10016
- Developmental Profile
Child Development and Mental Retardation Center
University of Washington
Seattle, Washington 98122
- Ellisville State School Assessment
Mississippi Deaf-Blind Evaluation Center
Ellisville State School
Ellisville, Mississippi 39437
- Georgia Academy for the Blind
Checklist
Georgia Academy for the Blind
Macon, Georgia
- Georgia Center for the Multi-Handicapped Assessment Scales
385 Glendale Rd.
Scottsdale, Ga. 30079
- Gesell Developmental Schedules
A. Gesell, et al.
Psychological Corporation
304 E. 45th St.
New York, N.Y. 10017
- Higginsville Behavior Scale
(No further information available)
- Learning Accomplishment Profile (LAP)
Infant Learning Accomplishment Profile
Anne Sanford
Chapel Hill Training-Outreach Project
Lincoln Center
Chapel Hill, N.C.
- Lexington Developmental Scale
United Cerebral Palsy of the Bluegrass
Springhill Drive
Lexington, Kentucky 40503
- Manual for the Assessment of a "Deaf-Blind" Multi-Handicapped Child
M. Collins and J. M. Rudolph
Michigan School for the Blind
Deaf-Blind Department
715 Willow St.
Lansing, Michigan 48906
- Meeting St. School Screening Test
Peter K. Hainsworth, et al.
Meeting St. School
333 Grotto Ave.
Providence, Rhode Island, 02906
- Prescriptive Teaching Program for Multiply Handicapped Nursery School Children: Skills Sequence Checklist
Meyer Children's Rehabilitation Institute
University of Nebraska Medical Center
Omaha, Nebraska
- Mid-Atlantic Regional Center Developmental Checklist for Deaf-Blind
Mid-Atlantic & Caribbean Regional Deaf-Blind Center
c/o New York Institute for the Education of the Blind
999 Pelham Parkway
Bronx, New York 10469
- Multiple Disabilities Telediagnostic Protocol
(No other information available)
- Piagetian Infancy Scales
A. Honig
Children's Center
Syracuse University
100 Walnut Place
Syracuse, N.Y. 13210

The Portage Guide to Early Education:
Instructions and Checklist (Experimental Edition)

D. Shearer, et al.

Cooperative Educational Service
Agency #12

Portage, Wisconsin 53701

Preschool Attainment Record, Research Edition (PAR)

Edgar A. Doll

American Guidance Service, Inc.
Publisher's Bldg.

Circle Pines, Minnesota 55014

Progress Assessment Chart (PAC)

Primary Progress Assessment Chart of
Social Development (P-PAC)

H. C. Gunzburg

SEFA (Publications) Ltd.

240 Holliday St.

Birmingham BI ISJ, England

Pupil Record of Educational Behavior

Teaching Resources Corporation

100 Boylston

Boston, Mass. 02116

Rainer School Assessment

(No further information available)

Santa Clara Inventory of Developmental
Tasks

R. L. Zweig Associates

520 Richey Ave.

W. Collingswood, New Jersey 08107

SEMBCS Developmental Scale

SEMBCS - Multihandicapped

2450 S. Wabash

Denver, Colorado 80110

Teaching Research Motor-Development
Scale

H.D. Fredricks, et al.

Charles C. Thomas

301-327 E. Lawrence Ave.

Springfield, Ill. 62703

Teaching Research Test

Teaching Research

Monmouth, Oregon 97361

Topeka Assn. for Retarded Children
Assessment Inventory (TARC)

H&H Enterprises

P. O. Box 3342

Lawrence, Kansas 66044

United Developmental Services &

Stonebelt Developmental Evaluation
and Programming Guide

c/o Stone Belt Center

3815 E. 10th St.

Bloomington, Ind. 47401

Wabash Developmental Guide for
Early Developmental Training

Wabash Center

2000 Greenbush

Lafayette, Ind. 47904

Screening

Kindergarten Entrance Inventory

(No further information available)

Manual for the Deaf-Blind Program
and Ability Screening Test

J. Lyall, V. Henry, G. Graham &
S. Lassiter

Mississippi Deaf-Blind Evaluation
Center

Ellisville State School

Ellisville, Mississippi 39437

Nonverbal Developmental Screening

Inventory (Experimental Edition)

Rebecca DuBoise

George Peabody College for Teachers

Nashville, Tenn. 37203

Screening Questionnaire for Deaf-

Blind Children under Residential
Care

Perkins School for the Blind

Department for Deaf-Blind Children

175 N. Beacon St.

Watertown, Mass. 02172

Screening Test for Use with the
Visually Oriented Deaf-Blind
J. Elioseff
Unpublished Paper
Perkins School for the Blind
Department for Deaf-Blind Children
175 N. Beacon St.
Watertown, Mass. 02172

Communication

Assessment of Children's Language
Comprehension (ACLC)
R. Foster, J. J. Giddan & Joel Stark
Consulting Psychologists Press, Inc.
577 College Ave.
Palo Alto, California 94306

Carrow Test for Auditory Comprehension
of Language
E. Carrow-Woolfolk
Learning Concepts
2501 N. Lamar N.W.
Austin, Texas 78705

Goldman-Fristoe Test of Articulation
R. Goldman & M. Fristoe
American Guidance Services, Inc.
Publisher's Bldg.
Circle Pines, Minn. 55014

Goldman-Fristoe-Woodcock Test of
Auditory Discrimination
R. Goldman, M. Fristoe & R. Woodcock
American Guidance Services, Inc.
Publisher's Bldg.
Circle Pines, Minn. 55014

Hejna Developmental Articulation Test
R. F. Hejna
College Typing Co.
Madison, Wisconsin

Houston Test for Language Development
M. Crabtree
Houston Test Co.
P. O. Box 35152
Houston, Texas 77035

Illinois Test of Psycholinguistic
Ability (ITPA)
J. McCarthy & S. Kirk
University of Illinois Press
Urbana, Illinois

Inner Language Scale
M. Branston & R. DuBose
George Peabody College for
Teachers
Nashville, Tennessee 37203

Language Behavior Rating Scale for
Young Multihandicapped Children
G. D. Gay
Graduate School of Education
UCLA
Los Angeles, California 90024

Mecham Verbal Language Development
Scale
M. J. Mecham
American Guidance Service, Inc.
Publisher's Bldg.
Circle Pines, Minn. 55014

Northwestern Syntax Screening
Test (NSST)
L. Lee
Northwestern University Press
1735 Benson Ave.
Evanston, Illinois 60201

Parsons Language Sample
In "The Assessment of Speech
and Language of Retarded
Children: the Parsons Language
Sample," J. E. Spradlin, Journal
of Speech and Hearing Disorders,
Supplement No. 10, Jan., 1963.

- Photo Articulation Test
K. Pendergast, S. E. Dickey, J. W.
Selmar & A. Soder
Interstate Printers & Publishers,
Inc.
19-27 N. Jackson St.
Danville, Ill. 61832
- The Preschool Language Scale
I. L. Zimmerman, V. Steiner &
R. Evatt
Charles E. Merrill Publishing Co.
Columbus, Ohio 43201
- The Receptive Expressive Emergent
Language Scale (REEL)
K. Bzoch & R. League
Tree of Life Press
Gainesville, Florida 32601
- Reynell Developmental Language Scales,
Experimental Edition
J. Reynell
NFER Publishing Co.
2 Jennings Bldg.
Thames Avenue
Windsor, Berks SL4 IQS, England
- R. E. P. Language Scale (Gesell)
(No further information available)
- Sequenced Inventory of Language
Development (SILD)
(No further information available)
- Utah Test of Language Development,
Revised Edition
M. J. Mecham, J. L. Jex & J. D.
Jones
Communication Research Associates,
Inc.
Box 11012
Salt Lake City, Utah 84111
- Milwaukee Language Evaluation Scale
University of Wisconsin in
Milwaukee
3203 N. Downer
Milwaukee, Wisconsin 53701

Self-Help Skills

- Ginzberg Scale for Basic Academic
and Self-Help Skills
(No further information available)
- Peabody College Checklist for Severely
Handicapped
George Peabody College for Teachers
Nashville, Tennessee 37203
- Manual for Education of Multiple
Handicapped Children
Self-Help Development: Eating Skills
George Peabody College for Teachers
Nashville, Tennessee 37203
- New York State School for the Blind:
Self Help Rating List
Deaf-Blind Program
N. Y. State School for the Blind
Richmond Avenue
Batavia, N. Y. 14020

Cognition

Balthazar Scales of Adaptive Behavior

E. E. Balthazar
Consulting Psychologists Press, Inc.
577 College Avenue
Palo Alto, California 94306

Columbia Mental Maturity Scale

L. H. Blum, B. Burgemeister &
I. Lorge
Harcourt, Brace & Javanovich, Inc.
New York, N.Y.

Detroit Tests of Learning Aptitude

H. J. Baker & B. Leland
Bobbs-Merrill Co., Inc.
4300 W. 62nd St.
Indianapolis, Indiana 46268

French Pictorial Test of Intelligence

(author unknown)
Houghton Mifflin
53 W. 43rd St.
New York, N.Y. 10036

Hayes-Binet

(adaptation of the Stanford-Binet
for the visually impaired)
Perkins School for the Blind
175 N. Beacon St.
Watertown, Mass. 02172

Hiskey-Nebraska Test of Learning Aptitude

M. S. Hiskey
5640 Baldwin
Lincoln, Nebraska 68508

Leiter International Performance Scale

R. G. Leiter & G. Arthur
Stoelting Company
1350 S. Kostner Ave.
Chicago, Ill. 60623

McCarthy Scales of Children's Abilities

D. McCarthy
Psychological Corporation
304 E. 45th St.
New York, N.Y. 10017

Merrill-Palmer Scale of Mental Tests

R. Stutsman
Stoelting Company
1350 S. Kostner Avenue
Chicago, Illinois 60623

Ontario School Ability Examination

H. Amoss
Ryerson Press
299 Queen St. W.
Toronto 2B
Ontario, Canada

Peabody Individual Achievement Test

L. M. Dunn & F. Markwardt, Jr.
American Guidance Service, Inc.
Circle Pines, Minnesota 55014

Peabody Intellectual Performance Scale

R. DuBose
John F. Kennedy Center
George Peabody School for Teachers
Nashville, Tennessee 37203

Peabody Picture Vocabulary Test

L. Dunn
American Guidance Service, Inc.
Circle Pines Minnesota 55014

Primary Mental Abilities Test

L. L. Thurstone & T. G. Thurstone
Science Research Associates
259 E. Erie St.
Chicago, Ill. 60611

Slosson Intelligence Test

R. L. Slosson
Slosson Educational Publications
140 Pine St.
E. Aurora, N.Y. 14052

Stanford Binet Intelligence Scale

L. M. Terman & M. A. Merrill
Houghton Mifflin Co.
110 Tremont St.
Boston, Mass. 02107

Wechsler Adult Intelligence Scale

D. Wechsler
Psychological Corporation
304 E. 45th St.
New York, N.Y. 10017

Wechsler Preschool and Primary Scales
of Intelligence

D. Wechsler
Psychological Corporation
304 E. 45th St.
New York, N.Y. 10017

Wechsler Intelligence Scales for
Children

D. Wechsler
Psychological Corporation
304 E. 45th St.
New York, N. Y. 10017

Social-Emotional

Academic and Social Behavior Assessment
Kit

Major Contributors: N. Haring, M.
Eaton, D. Gentry, F. Anderson,
M. Clark, C. Rinke & Z. Weaver
Experimental Educational Unit
Child Developmental and Mental
Retardation
University of Washington
Seattle, Washington

Visual-Motor Gestalt Test

L. Bender
American Orthopsychiatric Assoc.
1790 Broadway
New York, N.Y. 10017

Adaptive Behavior Scales

R. DuBose
John F. Kennedy Center
George Peabody College for Teachers
Nashville, Tennessee 37203

Children's Apperception Test
Children's Apperception Test (Human
Figures)

L. Bellak et al.
CPS, Inc.
P. O. Box 83
Larchmont, N.Y. 10538

Behavior Maturity Rating Scale for
Nursery School Children
W. Joel & J. Joel
(Out of print)

Edwards Personal Preference Schedule
(EPPSY)

A. Edwards
Psychological Corporation
304 E. 45th St.
New York, N.Y. 10017

Bender-Gestalt Test

G. Pascal and B. J. Suttell
Grune and Stratton, Inc.
381 Park Ave., S.
New York, N.Y. 10016

Fairview Social Skills Scale: For

Mildly and Moderately Retarded
R. T. Ross & J. S. Granpiccolo
Fairview State Hospital
Research Dept. 250
Harbor Blvd.
Costa Mesa, California 92626

Bender-Gestalt Test: Revised

M. L. Hutt & G. J. Briskin
Grune and Stratton, Inc.
381 Park Ave., S.
New York, N.Y. 10016

Family Relations Test: An Objective
Technique for Exploring Emotional
Attitudes in Children
E. Bene & J. Anthony
National Foundation for Educational
Research in England and Wales
79 Wimpole St.
London W.I., England

House-Tree-Person (H-T-P)

J. N. Buck & I. Jolles
Western Psychological Services
12031 Wilshire Blvd.
Los Angeles, California 90213

How I See Myself Scale

I. J. Gordon
Institute for Development of Human
Resources
University of Florida
Gainesville, Florida 82611

Interpersonal Checklist

R. LaForge, T. Leary et al
83 Homestead Blvd.
Mill Valley, California 94941

Maxfield-Buchholz Scale of Social Maturity

for Use with Preschool Blind Children
K. E. Maxfield & S. Buchholz
American Foundation for the Blind, Inc.
15 W. 16th St.
New York, N.Y. 10011

Rorschach Inkblot

Hermann Rorschach
Grune and Stratton
381 Park Avenue South
New York, N.Y. 10016

Thematic Apperception Test (TAT)

H. A. Murray
Howard University Press
79 Garden St.
Cambridge, Mass. 02138

Vineland Social Maturity Scale

E. Doll
American Guidance Service
Circle Pines, Minn. 55014

Sensory/Sensory-Motor

Bender Visual Motor Gestalt Test for
Children

A. Clawson
Western Psychological Services
Box 775
Beverly Hills, Calif. 94713

Blind Learning Aptitude Test

T.E. Newland
Conference on Research on Braille
American Foundation for the Blind
New York, N.Y. 10001

Developmental Test of Visual-Motor
Integration

K.E. Beery & N.A. Buktenica
Follett Publishing Company
1010 W. Washington Blve.
Chicago, Ill. 60607

Marianne Frostig Developmental
Test of Visual Perception

M. Frostig, et al.
Consulting Psychologist Press
577 College Avenue
Palo Alto, California 94306

Keystone Visual Screening Test
(author unknown)

Keystone View
2212 E. 12th St.
Davenport, Iowa 52803

Manual for Visual Assessment Kit
C. Ficociello

Area Centers for Services to
Deaf-Blind Children
Callier Center for Communication
Disorders
1966 Inwood Rd.
Dallas, Texas 75235

Operant Audiometry Manual for Difficult-
to-Test Children
D. Bricker, W. Bricker & L. Larsen
Institute of Mental Retardation and
Intellectual Development
George Peabody College for Teachers
Nashville, Tenn. 37203

Visual Efficiency Scale
Natalie Barraga
American Printing House for the
Blind
Louisville, Kentucky 40501

Motor/Physical

Bobath

See: B. Bobath, Neuro-development
treatment. Journal of American
Physical Therapy, 1967, 47(11),
1039-1041.

Body Image of Blind Children
B. Cratty, et al.
American Foundation for the Blind
15 W. 16th St.
New York, N.Y. 10011

California Sensory Integration Test
(author unknown)
(includes Ayres Space Test)
Western Psychological Services
Box 775
Beverly Hills, California 94713

Hughes Motor Development Test
(No further information available)

Jebson-Taylor Hand Function
(No further information available)

Lincoln-Oseretsky Motor Development
Scale
W. Sloan
Stoelting Company
1350 S. Kostner Ave.
Chicago, Ill. 60623

Manual Skills Progress Record (MSPR)
Oregon State Mental Health Division
Monmouth, Oregon 97360

Milani Comporette
P. H. Pearson, Project Director
Meyer's Children's Rehabilitation
Institute
University of Nebraska Medical
Center
Omaha, Nebraska 68131

Neuro-physiological Concept of
Facilitation Techniques
(No further information available)

Oseretsky Tests of Motor Proficiency
N. Oseretsky
English Translation: E. J. Fosa
Educational Test Bureau
720 Washington Avenue SE
Minneapolis, Minn. 55414

Peabody Developmental Motor Scales
R. Folio & R. DuBose
John F. Kennedy Center
George Peabody College for
Teachers
Nashville, Tennessee 37203

Purdue Perceptual-Motor Survey
E.G. Roach, et al.
Charles E. Merrill Publishing
Company
300 Alum Creek Drive
Columbus, Ohio 43216

Rhode Sentence Completion Test
Amanda Rohde
Western Psychological Services
17013 Wilshire Blvd.
Los Angeles, California 90025

Academic

Basic Educational Skills Inventory
(author unknown)
B. L. Winch & Associates
(address unknown)

Botel Reading Inventory
M. Botel
Follett Educational Corp.
1010 W. Washington Blvd.
Chicago, Ill. 60607

California Achievement Tests
Mathematics, 1970 Edition
E. W. Liegs & W.W. Clark
McGraw-Hill Book Company, Inc.
330 W. 42nd St.
New York, N.Y. 10036

Classroom Reading Inventory
N.J. Silvaroli, et al.
William C. Brown Company
2460 Kerper Blvd.
Dubuque, Iowa 52001

Doren Diagnostic Reading Test of
Word Recognition Skills, 1973
Edition
American Guidance Service
Publishers Bldg.
Circle Pines, Minn. 55014

Durrell Analysis of Reading
Difficulty
D. Durrell
Harcourt, Brace & Jovanovich, Inc.
757 Third Ave.
New York, N.Y. 10017

Gray Oral Reading Test
W. S. Gray
Bobbs-Merrill Company
4300 W. 62nd St.
Indianapolis, Ind. 46268

Key Math Diagnostic Arithmetic Test
A. J. Connolly, et al.
American Guidance Service, Inc.
Publisher's Bldg.
Circle Pines, Minn. 55014

Metropolitan Achievement Tests
(several different batteries)
W. Durost, et al.
Harcourt, Brace & Jovanovich, Inc.
757 3rd Ave.
New York, N.Y. 10017

Peabody Individual Achievement Test
Lloyd Dunn, et al.
American Guidance Service
Publishers Building
Circle Pines, Minn. 55014

Screening Probe for Academic Assess-
ment Battery
Experimental Education Unit
Child Development and Mental
Retardation Center
University of Washington
Seattle, Washington

Wide-Range Achievement Test, Revised
Edition
J. F. Jastak, et al.
Guidance Association of Delaware
1526 Gilpen Ave.
Wilmington, Delaware 19806

Woodcock Reading Mastery Test
R. W. Woodcock
American Guidance Service, Inc.
Publishers Bldg.
Circle Pines, Minn. 55014

Zimmerman-Sanders Social Studies Test
J. Zimmerman, et al.
Bureau of Educational Measure-
ments
Kansas State Teachers College
1200 Commercial
Emporia, Kansas 66802

APPENDIX E: CURRICULUM ALTERNATIVES

CURRICULUM ALTERNATIVES

General Curricula

Activity Handbook for Multihandicapped
Deaf Children
(No further information available)

Behavioral Characteristics Progression
Santa Cruz County Office of Education
Vort Corporation
Publications Dept. D
P. O. Box 11132
Palo Alto, Calif. 94306

Clark School for the Deaf Curriculum
Henshaw Ave.
Northampton, Mass.

Comprehensive Curriculum of Basic Developmental Skills for Children
(No further information available)

Corvallis Program for the Mentally Retarded
(No further information available)

Curriculum Guide for the Multi-Handicapped
I. Barrera
Education Service Center
Region XX
San Antonio, Texas 78200

Curriculum Guide for Teachers of the Educable Mentally Handicapped
H. Goldstein
Interstate Printers and Publishers, Inc.
Danville, Ill. 61832

Curriculum Guide from the Center of Behavioral Studies
Center of Behavioral Studies
North Texas State University
Denton, Texas 76203

Deaf-Blind Program Curriculum
J. Grauer, G. Reeves, D. Campbell
& S. Britt
Deaf-Blind Program
Georgia Academy for the Blind
Macon, Georgia

Early Childhood Education Program for the Handicapped: An Individualized Program
E. Cano & B. Schmidt
Edgewood Independent School District
San Antonio, Texas

East San Gabriel Valley Program for Multi-Handicapped Children
East San Gabriel Valley Schools
360 W. Mauna Loa Ave.
Glendora, Calif. 91740

Educational Beginnings with Deaf-Blind Children
N. Robbins
Perkins School for the Blind
175 N. Beacon St.
Watertown, Mass. 02172

Education and Care of Moderately and Severely Retarded Children
G. Alpern & T. Boal (Eds.)
Special Child Publications, Inc.
4535 Union Bay Place N.E.
Seattle, Washington 98105

A Framework for Preschool Curriculum Based on Piaget's Theory
C. Kami & N. L. Radin
Ypsilanti Public Schools
Ypsilanti, Mich. 48197

General Outline for a Training Program
of Deaf-Blind Children in State
Hospital Settings

A. Bisno
c/o Diagnostic School for Neuro-
logically Handicapped Children
4339 State University Drive
Los Angeles, California 90032

Guide for the Instruction and Training
of the Profoundly Retarded and
Severely Multi-Handicapped Child
T. Ball (Ed.)
Santa Cruz County Board of Educ.
Santa Cruz, Calif. 95060

Guide to the Early Education of the
Hearing Impaired
Wisconsin Dept. of Public Instruc-
tion
Madison, Wisc. 53700

Intellectual Stimulation for Infants
I. J. Gordon
Institute for Development of
Human Resources
University of Florida
Gainesville, Florida 32601

Jefferson Co. Schools Curriculum
Jefferson Co., Colorado
(No further information available)

Manual for the Assessment of a Deaf-
Blind Multiply Handicapped Child
M. Collins & J. Rudolph
Michigan State School for the
Blind
Deaf-Blind Dept.
715 Willow St.
Lansing, Mich. 48906

Michigan State School for the Blind
Curriculum
Michigan State School for the
Blind
715 Willow St.
Lansing, Michigan 48906

Midwest Regional Resource Center Guide
for the Evaluation of Deaf-Blind
Children

Midwest Regional Center for Ser-
vices to Deaf-Blind
c/o Michigan State School for the
Blind
715 Willow St.
Lansing, Michigan 48906

Guide to Services for the Deaf-Blind
Georgia Center for the Multi-
Handicapped
DeKalb Co. Board of Educ.
DeKalb Co., Georgia

Performance Objectives for Preschool
Children
G. J. Schirmer (Ed.), Project
Director
810 N. Lincoln Rd.
Escanaba, Michigan 49829

Piaget-Derived Preschool Curriculum
H. Sonquist, C. Kamii, & L. Derman
Ypsilanti Public Schools
Ypsilanti, Michigan 48197

Planning Guide to the Preschool Curri-
culum: The Child, the Process, the
Day
J. Findlay, P. Miller, A. Pegram, L.
Richey, A. Sanford & B. Semrau
Kaplan School Supply Corp.
600 Jonestown Rd.
Winston-Salem, N.C. 27103

Practical Guide to the Training of Low
Functioning Deaf-Blind Children
M. J. Watson, J. L. Nicholas
Oakhill School
120 Holcomb St.
Hartford, Conn. 06112

"Preschool" Period for Deaf-Blind
Children: Developmental Level 4 to
24 Months
C. Johnson
Perkins School for the Blind
175 Beacon St.
Watertown, Mass. 02172

- Portage Guide to Early Education
D. Shearer, J. Billingsley, A. Frohman,
J. Hilliard, F. Johnson & M. Shearer
Cooperative Educational Service
Agency #12
Portage, Wisconsin 53701
- Program of Individual Educational
Behavior
H. Turnbow, S. B. Turnbow
(No further information available)
- Project MORE Modules: Eating, Tooth-
brushing, Handwashing, Noseblowing
Edmark Associates
13249 Northrup Way
Bellevue, Washington 98005
- Research Infant and Child Center
Curriculum for the Moderately
and Severely Handicapped, 1975
B. Fredericks, et al.
Teaching Research
Monmouth, Oregon 97361
- Right-to-Education Child: A curriculum
for the Severely and Profoundly
Mentally Retarded
D. Myers, M. Sinco & E. Stalma
Charles C. Thomas Co.
Bannerstone House
301-327 E. Lawrence Ave.
Springfield, Ill. 62701
- Slow Learning Program in Elementary and
Secondary Schools
Cincinnati, Ohio
(No further information available)
- Special Education Activity Handbooks
Abilene Independent School District
Abilene, Texas 79601
- Specific Skills Developmental Program
Dallas Co. MH-MR Center
1200 Stemmons Towers North
2710 Stemmons Freeway
Dallas, Texas 75207
- A Structured Teaching/Learning Program
for Severely and Multiply Handi-
capped Children
E. Ekey, et al.
Lincolnia Center for the Multiply
Handicapped
4710 N. Chambliss St.
Alexandria, Va. 22312
(Revised edition to be available in
1975-76 school year)
- Suggested Curriculum for Multiple
Handicaps
V. Hart
George Peabody College for Teachers
Dept. of Special Education
Nashville, Tenn. 37203
- Systematic Instruction for Retarded
Children: The Illinois Program
Part I: Teacher-Parent Guide
Part II: Systematic Language
Instruction
Part III: Self-Help Instruction
Part IV: Motor Performance and
Recreation Instruction
Interstate Printers and Publishers
Danville, Ill. 61832
- A Systems Approach to Individualizing
Instruction for Young Deaf Children
F. Powell & J. Burroughs (Eds.)
Callier Center for Communication
1966 Inwood Rd.
Dallas, Texas 75235
- Teaching Research Curriculum for
Moderately and Severely Handicapped
Teaching Research Infant and Child
Center Staff
Charles E. Merrill Publishing Co.
1300 Alum Creek Drive
Columbus, Ohio, 43217
- United Developmental Services and Stone-
belt Developmental Evaluation and
Programming Guide
Stonebelt Center
2815 E. 10th St.
Bloomington, Ind. 47401

Wabash Guide to Early Developmental
Training
Wabash Center
2000 Greenbush
Lafayette, Ind. 47904

Communication

Auditory Training in the Perkins
Deaf-Blind Department
N. Robbins
Perkins School for the Blind
175 Beacon St.
Watertown, Mass. 02172

Basic Course in Manual Communication
(ABC)
Communicative Skills Program
T. O'Rourke, Director
National Assoc. for the Deaf
Silver Spring, Maryland

Curriculum Guide for the Hearing
Impaired in Metro-Atlanta Area
(No further information available)

DeKalb County Preschool Language Development Guide
DeKalb Co. Board of Education
DeKalb Co., Georgia

Early Language Intervention System
D. Bricker & W. Bricker
George Peabody College for Teachers
Nashville, Tenn. 37203

Environmental Programming for the
Deaf-Blind: Talk to the Deaf
(No further information available)

Getting Your Baby Ready to Talk: A
Home Study Plan for Infant Language
Development
John Tracy Clinic
806 W. Adams Blvd.
Los Angeles, Calif. 90007

Language and Learning Disorders of the
Pre-Academic Child: With Curriculum
Guide
T. Bangs
Appleton-Century Crofts
New York, N.Y.

Language Training Program for Young
Developmentally Delayed Children
D. Bricker, L. Dennison, L. Watson
& L. Vincent-Smith
Institute on Mental Retardation and
Intellectual Development
George Peabody College for Teachers
Nashville, Tenn. 37203

Murdock's Language Program
(No further information available)

Non-Speech Language Imitation Program
J. Carrier
H&H Enterprises, Inc.
Box 3342
Lawrence, Kansas 66044

Play It by Ear
E. Lowell & M. Stoner
John Tracy Clinic
806 W. Adams
Los Angeles, Calif. 90007

Programmes for Non-Verbal Children
F.J. Southwell, Headmaster
Lea Castle Hospital Special School
(No further information available)

Say It with Hands
L. Fant
National Assoc. of the Deaf
814 Thayer Ave.
Silver Spring, Maryland 20910

Signing Exact English (SEE)
Signing Exact English Supplement
Publishing Division
National Assoc. of the Deaf
814 Thayer Ave.
Silver Spring, Maryland 20910

Speech Beginnings in the Deaf-Blind
Child
N. Robbins
Perkins School for the Blind
175 Beacon St.
Watertown, Mass. 02172

Syntax and Concepts
(Adaptation of Stremmel and Warjas'
curriculum; no further information
available)

Utah School for the Deaf: Language
Curriculum & Speech Curriculum
(No further information available)

Self-Help/Daily Living

Activities of Daily Living
(No further information available)

Behavior Modification Programs for
Teaching Self-Help Skills
R. A. Miller & W. P. Roughton
Psychology Services
Murdoch Center
Butner, North Carolina

Manual for the Development of Self-
Help Skills in Multiply Handicapped
Children (Exp. Ed., Nov., 1971)
George Peabody College for Teachers
Nashville, Tennessee 37203

Practical Life Activities
Child Study Center
University of Oklahoma Health
Science Center
Deaf-Blind Program
214 E. Madison
Oklahoma City, Okla.

Problem Feeder Mini-Workshop
M.A. Reilly (Ed.)
Callier Center for Communication
Disorders
1966 Inwood Rd.
Dallas, Texas 75235

Teaching Eating Behavior
Area Center for Services to
Deaf-Blind Children
Callier Center for Communication
Disorders
1966 Inwood Rd.
Dallas, Texas 75235

Toilet Training in Less than a Day
N. H. Azrin & R. M. Foxx
Research Press
Box 3177F
Champaign, Ill. 61820

Sensory/Sensory-Motor

A.B.C. of Auditory Training
(No further information available)

Basic Sense--The Sense of Weight
Child Study Center
University of Oklahoma Health
Sciences Center
Deaf-Blind Program
214 E. Madison
Oklahoma City, Okla.

Ruth Cheves Program
Teaching Resources Corporation
100 Boylston
Boston, Mass. 02116

Developing Learning Readiness (Tactile
and Kinesthetic)
McGraw-Hill, Inc.
330 W. 42nd St.
New York, N.Y. 10036

Marianne Frostig Developmental Test of
Visual Perception
M. Frostig, et al.
Consulting Psychologists Press
577 College Avenue
Palo Alto, Calif. 94306

Hadley Relevant Listening
(No further information available)

Kinesthesia
Child Study Center
University of Oklahoma Health
Sciences Center
Deaf-Blind Program
214 E. Madison
Oklahoma City, Okla.

Sensorimotor Dysfunction in Primary
School Children
Galeta, Calif.
(No further information available)

Teacher's Guide for Development of
Visual Learning Abilities and Utili-
zation of Low Vision
N. C. Barraga
Dept. of Special Education
University of Texas
Austin, Texas 78712

Teaching Manual for Sensory Stimulation
of the Bedfast Multiply Handicapped
Retardate
Oscilee, Loftin & Cooksey
Austin State School
Austin, Texas

Focusing and Tracking for a Child with
Impaired Vision
Child Study Center
University of Oklahoma Health
Sciences Center
Deaf-Blind Program
214 E. Madison
Oklahoma City, Okla.

Tactile Discrimination
Child Study Center
University of Oklahoma Health
Sciences Center
Deaf-Blind Program
214 E. Madison
Oklahoma City, Okla.

Motor/Physical

Developmental Exercises for Non-
Ambulatory Deaf-Blind Children
C. Stone
(No further information available)

Habilitation Techniques: Infant and
Early Childhood Stimulation
A. Atkinson & L. Holder
c/o Model Demonstration Center for
the Severely Handicapped
P. O. Box 2592
University of Alabama
Tuscaloosa, Alabama 35486

Hospital Sensory Motor Program
J. D. Jex
Utah State Training School.
American Fork, Utah

Motor Development Program
Madison Public Schools
Madison, Wisconsin

Movement and Spatial Awareness in Blind
Children and Youth
B. Cratty
Charles C. Thomas Co.
Bannerstone House
301-327 E. Lawrence Ave.
Springfield, Ill. 62701

To Move is to Be
(No further information available)

Trampoline Skills
SEMBCS-Multi-Handicapped
2450 S. Wabash
Denver, Colorado 80110

Cognition

Concept Development for Visually
Handicapped Children: A Resource
Guide for Teachers and Other
Professionals Working in
Educational Settings
W. T. Lydon & L. McGraw
American Foundation for the Blind
15 W. 16th St.
New York, N.Y. 10011

Academic

Addison-Wesley Math Curriculum
Addison-Wesley Publ. Co.
2725 Sand Hill Rd.
Menlo Park, Calif. 94025

Pre-Reading and Reading Skills for
Deaf-Blind Children
C. Groves
Deaf-Blind Program
Child Study Center
University of Oklahoma Health
Sciences Center
214 E. Madison
Oklahoma City, Oklahoma

A Rudimentary Developmental Math Skill
Sequence for "Severely Handicapped"
Students
W. Williams, P. Coyne, F. Johnson,
N. Scheuerman, J. Stepner, B.
Swetlik, & R. York
Madison Public Schools
Madison, Wisconsin

Sullivan Remedial Reading Series
Behavioral Research Laboratories
Box 577
Palo Alto, Calif. 94302

Vocational/Pre-Vocational

Planning for Prevocational Services for
Deaf-Blind Children
Deaf-Blind Program
Callier Center for Communication
Disorders
1966 Inwood Rd.
Dallas, Texas 75235

New York Institute Program
New York Institute for the Blind
999 Pelham Parkway
Bronx, N.Y. 10469

Pre-Career Curriculum for Deaf-Blind
(No further information available)

Parents

Family Play Manual
Joseph P. Kennedy, Jr. Foundation
1701 K. St., N.W.
Washington, D.C. 20006

Handbook for Parents of Deaf-Blind
Children
J. Esche & C. Griffin
Michigan School for the Blind
715 Willow St.
Lansing, Mich. 48906

Infant Stimulation: A Pamphlet for
Parents of Multiply-Handicapped
Children
S. Hoffman
Kansas University
Kansas City, Kansas

John Tracy Clinic Correspondence Learn-
ing Program for Parents of Pre-School
Deaf-Blind Children
John Tracy Clinic
806 W. Adams Blvd.
Los Angeles, Calif. 90007

Meeting St. School Project: Parent Pro-
grams for Developmental Management
Meeting St. School
333 Grotto Ave.
Providence, R.I. 02906

Pots and Pans: Activities for Parent
and Child
Activities for Preschool Multiple Handi-
capped Children
Office of Supt. of Public Instruction
Springfield, Ill.

Project Parent-Child
East San Gabriel School for Multi-
Handicapped Children
360 W. Mauna Loa Ave.
Glendora, Calif. 91740

APPENDIX F: ALTERNATIVES FOR
MATERIALS AND EQUIPMENT

ALTERNATIVES FOR MATERIALS AND EQUIPMENT

Materials

Sensory/Perceptual

Touch and tell books
Touch and feel materials
D.L.M. auditory training
Microfragrance kits
Stuffed animals
Sound-order sense materials
Braille clock
Sounds and symbols
Phonovisual
Dubnoff Perceptual Series
Fabric

Fine Motor/Manipulative

Stacking toys
Peg boards
Jumbo peg boards
Graduated cylinders
Large inlaid wood puzzles
Shape boards
Beads
Texturized beads
Montessori boards
Self-help boards (lacing,
buttoning, etc.)
Thread
Needles
Fisher Price and Playskool
toys and infant materials
Assorted manipulative toys

Academic

Talking books
Distar Math
Project LIFE
Systems 80
Developing Understanding of Self and
Others
Large Print books
Individualized Mathematic System
First Talking Alphabet
SRA: Learning to Think
Singer Career Awareness
See It, Say It, Use It
Edmark Reading Program
Abacus with large beads
Adapted science materials for the
blind
Rebus Reading Program
Counting kit
Flash cards
D.L.M. buzzer board
Shape-O's
Peabody Language Development Kit
Distar Language I

Equipment

Instructional: Academic/Multi-Purpose

Controlled reader
Language Master
Individual language boards
Braille (Braille writer)
Stylus
Large print electric typewriter
Electric typewriter
Teaching machine
Lap boards
Biofeedback machine
Math computer
Calculator

Overhead projector
Cassette tape recorder and tapes
Record player and records
Movie projector
Slide projector
Rear projection screen
Film screen
Enlarger
Polaroid camera
T.V. camera
Piano
Headsets

Instructional: Sensory

Teletrainer
Audiometer
Auditory loop system
Voice light
Optokinetic drum
Wurlitzer listening lab
Phonic ear
Auditory training equipment

Sound box
Listening station
Vibration board
Sound ball
Colored lights
Auditory-visual training equipment
Vibrators
Tactile, auditory, visual feedback unit

Instructional: Living/Work Skills

Looms and yarn
Large and small electrical appliances
Sewing machine
Garden and carpenter tools
Animal equipment and shelter
Power saw
Drill press
Sanders (various types)

Industrial can openers
Screw drivers and other hand tools
Ceramic Equipment
Toilet training devices
Adapted eating utensils
Special scissors
Porta-toilet
Long canes

Instructional/Recreational: Gross Motor

Exercise mat
Climbing toys
Large ball
Medicine ball
Developmental skills ball
Therapy ball
Cage ball
Trampoline/jump-o-line
Walking bars
Punching toy
Walkers
Tricycle and adapted tricycle
Bicycle
Crawling tunnel
Parallel bars

Balance blocks
Swinging tires
Jungle gym
Balance beam
Ladder
Inner tubes
Barrels
Chin bar
Bat
Roller
Hockey equipment
Stabilizer
Scoot board
Vestibular board

Furniture/Classroom Design

Wedges
Pillows
Sandbags
Juke box
Water bed
Peg chairs
Floor raisers
Corner chair
Standing board
Benches
Co-active movement bench
Mirrors
Hammock
Standing table
Wheel chairs
Rocking chair
Standing boxes
Small tables and chairs

Tilt tables
Rotators
Vibrating chair
Chair with pulley, eater and writer
Beanbag chair
Stairs
Feeding tables
Deaf-blind multi-media table
Specialized baby chair and table
Light table
Sectional tables
Adapted walkers
Ramps
Vibrating floor
Prone board
Bolsters
Writing board (for spastics)

APPENDIX G: SAMPLES OF WRITTEN PLANS

PATIENT CARE PLAN
Interdisciplinary

SAMPLE 1, p. 1

Patient Name _____, Physician _____

Record No. _____, Admission Date: _____, Age: _____, Sex: _____

DIAGNOSIS: _____ ICU SCU

Prognosis for each diagnosis specify (Good 1), (Poor 2), (Guarded 3)

Attending Physicians Care Plan: _____

Nursing Care Plan:

Physical Therapy Care Plan:

Speech Therapy Care Plan:

190

Occupational Therapy Care Plan:

SAMPLE 1, p. 2

Dental Care Plan:

Optometrist

Psychological Care Plan:

Educational Care Plan:

Occupational Therapy Care Plan:

SAMPLE 1, p. 3

Dental Care Plan:

Optometrist

Psychological Care Plan:

Educational Care Plan: